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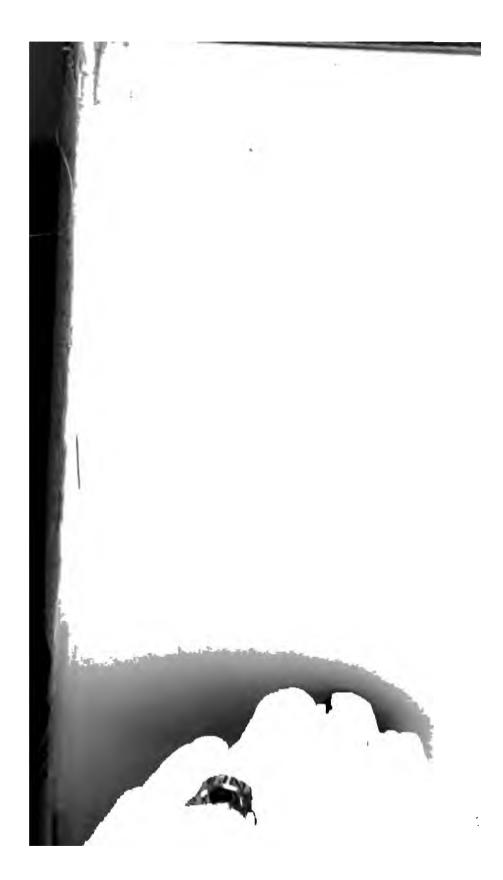


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## TRANSACTIONS

OF THE

# HISTORIC SOCIETY

OF

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LANCASHIRE AND CHESHIRE.

NEW SERIES-VOLUME II.

SESSION 1861-62.

LIVERPOOL : ADAM HOLDEN, 49, CHUBCH STREET. 1862.

LIVERFOOL: T. BRARRIL, PRINTER, COOK STREET.

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This Volume has been edited by the Assistant Secretary, under the direction of the Council. The Writers of Papers, however, are alone responsible for the facts and opinions contained in their respective communications.

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### EXPLANATORY NOTE.

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Ex Oppicits.
The MATCH OF LIVE BPOOL.
The HIGH SURRIFF OF LANCASHIRE.
The HIGH SHERIPP OF CREANIRE.

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• In accordance with Law XX, the ('ouncil added the three elected Vice-Presidents, the Librarian and Curutor, to all the Sectional Committees.

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### LIST OF MEMBERS.

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### SESSION XIV, 1861-62.

The first List was dated 23rd November, 1848; all whose names appeared in it are therefore Original Members. Those who have been enrolled as Mayors or Sheriffs have their year of office attached. The letter P denotes that the Members in connexion with whose names it occurs, have read papers before the Society.

Those whose names are printed in SMALL CAPITALS are Members of the Council; and in *italics* are Life Members. Those marked thus • are Resident. The post town Liverpool is usually omitted.

Α
23rd Nov., 1848. <i>Ainslie, Montague</i> , Grizedale, Hawkshead, Win- dermere.
1st Dec., 1859. Ainslie, P. B., F.S.A. Scot., Guildford.
6th Dec., 1855. Alleard, William, 43, Upper Brook street, Grossenor square. London
17th Dec., 1857. *Anderson, Thomas Darnley, 5, India buildings, Water street, and 37, Northumberland terrace, Everton.
3rd May, 1849. *Anderson, Thomas Francis, Holly lodge, Fairfield, and 3, Cable street.
4th Dec., 1856. Ansdell, John, St. Helens.
23rd Nov., 1848. Ansdell, Richard, A.R.A., 7, Victoria road, Ken- sington, London.
15th Sept., 1854. Arrowsmith, P. R., The Ferns, Bolton.
2nd Dec., 1858. Artingstall, George, Warrington.
P. 11th May, 1854. Aspland, Rev. R. Brook, M.A., Frampton villas, South Hackney, London.
P. 9th Oct., 1854. Atherton, Henry, Sutton, Prescot.
H.Sh. Cheshire, 1857. Atkinson William, Ashton heyes, Chester.
23d Nov., 1849. *Avison Тномая, F.S.A., 18, Cook street, and Fulwood Park, Aigburth.
В
3rd Jan., 1861. *Baar, Hermann, Ph.Dr., 15, Sandon street.
1st Nov., 1860. *Bairstow, W., Dale street.
8th June, 1854. *Banning, John Johnson, 20 Castle street.

1st Nov., 1860.	*Bairstow, W., Dale street.	
8th June, 1854.	*Banning, John Johnson, 20 Castle street.	
7th Feb., 1861.	*Bartlett, William, 22, North John street.	
12th Jan., 1860.	*Bath, William H. P., 54, Grove street.	
6th March, 1862.	Bazley, Thomas, M.P., Hayesleigh, Manchester,	
•	and Reform Club, London, S.W.	
6th Dec., 1849.	Beamont, William, Warrington.	3
21st May, 1857.	*Bean, Edwin, Revenue buildings.	
15th April, 1858.	*Bell, Christopher, Back Goree.	
• ·	· •	

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P.

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N,

23rd Nov. 1848. \*Bell, Henry, Hamilton square, and Grosvenor road, Claughton, Birkenhead.
15th Nov. 1854. \*Belshaw, John, Wason buildings, 4, Harrington street. 23rd Nov., 1848. \*BENNETT WILLIAM, Sir Thomas's Buildings, and 109, Shaw street. 3rd Dec., 1857. Berry, Percival, 32, Great George street, Westminster 7th March, 1850. Birch, Sir Thomas Bernard, Bart., The Hazles, Prescot. Birchall, Thomas, Ribbleton hall, Preston. 23rd Nov., 1848. 23rd Nov. 1848. \*Bird, William. 1st May, 1862. Birkenhead, E. Birkenhead, E. H., F.G.S., Scarisbrick st., Wigan. Birley, Rev. John Shepherd, Halliwell hall, Preston. 4th March, 1852. Sth Jan. 1852. Birley, T. Langton, Carr hill, Kirkham.
19th April, 1860. \*Birnie, D. E., 16, North John street, and 47, Church street, Birkenhead.
6th Dec., 1855. Black, J., M.D., F.G.S., 2, George's square, Education of the street street street street. Р. 6th Dec., 1855. Black, J., M.D., F.G.S., 2, George's square, Edinburgh.
23rd Nov., 1848. Blackburne, John Ireland, The Hall, Hale.
20th Sept., 1854. Blackmore, William, 10, Water street, and Hooton, Chester.
20th Sept., 1854. \*BLOXAM, FREDERICK WILLIAM, F3, Liverpool and London Chambers.
23rd Nov., 1848. \*Blundell, Thomas Weld, Ince Blundell, Great Crophy Crosby. Booth, Benjamin Witham, Swinton, Manchester. 5th May, 1853. 1st May, 1856. Booth, John Billington, Overleigh house, Preston. 15th Dec., 1853. Bossi, Arthur, Paris. Bostock, Rev. H., M.A., Grammar School, 31st Sept., 1854. Warrington. 3rd Jan., 1856. \*Bouch, Thomas, 1, Oldhall-street, and New Brighton. 23rd Nov, 1848. \*Boult, Francis, Richmond buildings, and Devonshire road, Claughton. P. 23rd Nov., 1848. \*Boult, Joseph, North John street, and Parkfield road, Aigburth road. road, Aigburth road. 8th Dec., 1851. 15th April, 1858. \*Bowers, Anthony, Vauxhall foundry. 6th Dec., 1855. 18th Nov., 1851. 18th Nov., 1851. 17th Dec., 1853. 17th Dec., 1857. \*Bradley, William Gibson. 52, Bold street, and 18, Kenyon terrace, Birkenhead. 23rd Nov., 1848. \*Brakell, Thomas, 7, Cook street, and 23, Rich-mond terrace, Everton. Mayor Liv., 1848.0. \*Bramley-Moore, John, M.P., Hon. Mem. Archæol. Association, Aigburth. Association, Aigburth. 30th Dec., 1854. Brent, Francis, Custom house, Plymouth. 9th March, 1854. \*BRIGHT, HENRY ARTHUR, A.M., Fairfield, and 1, North John street.

Srd May, 1849. Brooke, Henry, Forest hill, Northwich. 6th March, 1851. Brooke, Richard, jun., Norton Priory, Runcorn.

MEMBERS.

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#### MEMBERS.

23rd Nov., 1848. \*Brown, Colonel, Richmond buildings, Chapel street, and Richmond hill, VICE-PRESIDENT. 15th March, 1855. \*BROWNE, G. MANSFIELD, 15, South hill, Park road. 11th Sept., 1854. \*BURKE, WILLAM, 17, Bagot street, Smithdown road, TREASCREER

17th Sept., 1854. Burnell, Rev. Samuel, A.M., Winwick, War-

•

₽.

rington. 15th Dec., 1853. \*Buxros, David, F.R.S.L., Principal of the Liverpool Deaf and Dumb Institution, Oxford street, LIBBARIAN.

#### C

23rd Nov., 1848 \*Caine, Nathaniel, 12, Dutton street.
3rd Dec., 1857. \*Calder, Rev. William, A.M., Holly road, Fairfield.
1st Dec., 1859. Callender, W. Romaine, jun., F.S.A., Ashburne house, Rusholme, Manchester.
6th Dec., 1855. Calvert, F. Crace, Ph Dr., F.R.S., F.C.S., M.R.A., Turin, Royal Institution, Manchester.
23rd Nov., 1848. \*Campbell, Rev. Augustus, A.M., 131, Duke street, and Thy Vicerare Coldwall 23rd Nov., 1848. \*Campbell, Rev. Augustus, A.M., 131, Duke street, and The Vicarage, Childwall
18th Dec., 1856. \*Campbell, Captain William, R.I.A.
4th April, 1850. Cartisle, His Excellency the Earl of, K.G., Castle Howard, Yorkshire, and The Castle, Dublin.
18th Dec., 1856. Cartwright, Samuel, Bushell place, Preston.
6th Dec., 1859. \*Casson, William, 39, Parliament street, and 3, Great George square.
27th Sept., 1854. \*Caswy, George, Naylor street, and Walton.
3rd Dec., 1857. \*Chaburn, Charles Henry, 71, Lord street, and Egremont, Birkenhead
15th April, 1859. Chabure, Thomas, 26, North John street, and Chaloner, Thomas, 26, North John street, and College street South 15th April, 1858. 14th Sept., 1854. H.Sh. Chesh, 1855-6. \*Chantrell, G. F., I. Hatton garden. Chapman, John, M.P., Hill End, Mottram-in-Longdendale 21st May, 1857 Cheetham, John, Eastwood, Stalybridge. CHISHIRE, THE HIGH SHERIPF OF, VICE-PREMIERT, as officio Chester, The Lord Bishop of, The Palace, Chester, \*Clare, John Leigh, 11, Exchange buildings, and Richmond terrace, Breck road. 2nd June, 1853 23rd Nov., 1858. Clement, Leonard, Trinity terrace, Burnley. Coates, Rev. W. H., Neston, Cheshire. Colston, Rev. John, Quarry bank, Wilmslow, Manchester. 14th April, 1859. 17th Dec., 1857. 10th Nov., 1854 24th May, 1855. 23rd Nov., 1848. 18th Dec., 1856. Comber, Thomas "Conway, John, Cable street. Corser, Rev. Thomas, A.M., Stand, Manchester, Coulthart, John Ross, F.S.A., Scot., Croft house, 23rd Nov , 1848. Ashton-under-Lyne Cressneell, Right Hon Sir Cressnell, 21. Prince 21st May, 1857.

6th Dec., 1849. \*Crossfeld, Henry, 4, Temple place, and Edge mount, Edge lane.

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#### MEMBERS.

9th Jan., 1862.

Cross, Richard Assheton, Warrington.

9th Jan., 1862. Cross, Richard Assheton, Warrington.
23rd Nov., 1848. Crosse, Thomas Bright, Shawe hill, Chorley.
2nd May, 1850. Crossley, James, F.S.A., President of the Chetham Society. 6, Booth street, Piccadilly, Manchester.
P. 23rd Nov., 1848. \*Cust, Ileut.-GEN. the Hon. Size Edward, K.C.H., D.C.L., F.R.S., Leasowe Castle, Cheshire, Claremont, Surrey, and Hill street, London, PRESIDENT.

D

- 8th Dec., 1851. Dale, Rev. Peter Steele, A.M., Mytholme lodge,
- Hollin's Green, Warrington. 23rd Sept., 1854. \*Davies, Comenius, 110, Paddington, Edge hill. 6th March, 1856. Daw, Robert, F.B.S.E., &c., Saxby rectory,
- 28rd Nov., 1848. \*Dawson, Henry, 30, Redcross street, and 14, St. James's road.

- James s road. 2nd May, 1850. \*Dawson, Thomas, 20, Rodney street. 23rd Nov., 1848. Dearden, James, F.S.A., Rochdale Manor, Lan-cashire, and Upton house, Poole. 6th April, 1850. De Tabley, The Lord. 23rd April, 1857. Deronshire, The Duke of, K.G., D.C.L., F.R.S., Chatsworth, Derbyshire, and Devonshire bouce London house, London.

**P**.

- house, London. 7th May, 1851. \*Dickinson, Joseph, M.A., M.D., F.R.C.P., F.R.S., F.L.S., M.R.I.A., 92, Bedford street South. 20th Dec., 1855. Dobson, William, Chronicle office, Preston. 7th March, 1853. \*Dove, Percy M., F.S.S., F.I.A., Royal Insurance Office, 1, North John street, and Castleden lodge, Claughton road, Birkenhead.
- 4th Nov., 1858. \*Drysdale, C. Alexander, 7, Elm terrace, Fairfield. 23rd Nov., 1848. \*Duarte, Ricardo Thomaz, 2, Royal bank buildings. 13th Sept., 1854. \*Duncan, Thomas, 44, West Derby street.

#### E

- 1st Jan., 1857. \*Eaton, Francis James, Richmond terrace, Breck sth March, 1862. \*Edwards, Edward, Tue brook. West Derby.
  8th March, 1862. \*Edwards, Edward, Tue brook. West Derby.
  8th March, 1862. \*Egerton, Hon. Algernon, M.P., Worsley Old hall,

P.

- Manchester. Egerton, Hon. Wilbraham, M.P., Rostherne hall, Knutsford. 7th Jan., 1851.
- 6th March, 1862.
- Knutsford.
  8th March, 1862. Egerton of Tatton, Rt. Hon. the Lord, Tatton park, Knutsford.
  23rd Nov., 1848. Egerton, Sir Philip De Malpas Grey, Bart., M.P., F.R.S., F.G.S., Oulton park, Tarporley.
  23rd Nov., 1848. \*Evans, Edward, 56, Hanover street.
  4th Nov., 1858. \*Evans, Edward Francis, Church road, Stanley.
  8th Nov., 1849. \*Evans, Thomas Bickerton, 56, Hanover street.
  23rd Nov., 1848. \*Ewart, Joseph Christopher, M.P., 64, Pall Mall, London, and New Brighton.
  6th May, 1852. Ewart, William, M.P., 6, Cambridge square, Hyde park, London, and Broadleas, Devizes.

**X**.

- 23rd Nov., 1848.
- 23rd April, 1857.

#### MEDICAL STREET,

F 7th Feb., 1861. \*Fabert, J. O. W., 3, St. James's walk. 3rd Dec., 1837. Fairbairn, William, F.R.S., Manchester. 3rd Nov., 1848. \*Finlay, William, Collegiate Institution.

3rd Dec., 1857. 23rd Nov., 1848.

- 15th April, 1858. \*Forrest, J. A., 58, Lime street, and 5, Charlesville, Claughton, Birkenhead. 5th Dec., 1850. \*Forster, Wilson. New Ferry terrace, Rock Ferry,
- and 14, Temple street. ort, Richard, Woolley hall, Maidenhead, and
- Fort, Richard, Woolle Read hall, Clitheroe 6th March, 1862
- 23rd Sept., 1854. \*Forwood, T. B., 11, Dale street, and The Hollies, Fairfield.
- 7th May, 1857. Frackelton, Rev. S. S., A.M., Ballynahinch, Ireland.
- 15th Dec., 1853. Franks, Augustus Wollaston, A.M., F.S.A., British Museum, London. 6th Jan., 1858. French, Hilbert James, F.S.A., Corr. Mem. 8.A.
- Scot. Bolton. (MEMBER OF THE COURCIL.) Frost. Meadows, 25, Albany, Oldhall street, and St. John's house, Chester. 7th Jan., 1858.

#### G

- 14th Dec., 1848. \*Gardner, Richard Cardwell, Colonial buildings, 34, Dale street, and Newsham house 3rd May, 1849. Garnett, Wm. James, M.P., Bleasdale tower,
- Garstang. 23rd Nov., 1848. \*Gaskell, John Booth, Exchange court, Exchange street East.
  - 7th Feb., 1859. #Gath, Samuel, 45, Shaw street, Everton.
- 18th Dec., 1956 «Genard, Henry, 10, Rumford place. 20th Nov., 1856 «Ginaos, A. Craio, Lower Bebington, Birkenhead,

2

- CURATOR.
- CERATOR.
  Gibson, J. H., Apsley villas, Belmont road.
  Gil, Robert, 1. Chapel street, and Much Woolton. *(Radstope, Rt. Hon. W. E.*, M.P., Chancellor of the Exchequer, 11, Carleton terrace, London, S.W.
  Gleadowe, Rev. R. W., A.M., Neston Vicarage, Cheshire.
  Colored Leke. 66, Managements. 1st May, 1862. 7th March, 1850. 6th March, 1862.
  - 3rd Dec., 1857
- Cheshire. 15th April, 1959. \*Glover, John, 26, Hanover street 9th Dec, 1852. \*Graves, Samuel Robert, 13, Redcross street. 21st Sept., 1954. Gray, Rev. R. H., A.M., Kirkby, Prescot. 14th Dec, 1848. Gray, Rev. R. H., A.M., Kirkby, Prescot. 14th Dec, 1848. Gray, Thomas, Manager and Secretary, Unity Insurance Office, London. 6th Feb, 1851. Gray, William, M.P., Darcy Lever hall, Bolton. 2nd Dec, 1858. \*Greame, Malcolm, Colonial buildings, Dale street. 16th Sept., 1854. \*Green, Thomas, Richmond buildings, Chapel street. street
- street. Greenall, Rev. Richard, A.M., Incumbent of Stretton, R. D., Stretton, Warrington. Greene, John Stock Turner, Myddleton hall, Warrington. Grenside, Rev. William Bent, A.M., Melling Vicense Lancester 23rd Nov., 1848 16th Sept., 1854.
- 31st Aug., 1954.
- Vicarage, Iancaster. 19th March, 1857. \*GRIMMER, W. HRNRY, Delta chambers, Cable-st

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### MEMBERS.

	18th March, 1862.	Grosvenor, Rt. Hon. the Earl, M.P., Calveley, Tarporley.
	8th Nov., 1849.	Guyton, Joseph, Derwent road, Stoneycroft.
		H
	•	*Hall, Charlton R., 19, Dale street, and Liscard castle, Birkenhead.
	1st May, 1862.	*Hall, J. J., 28, London road.
	10th Dec., 1857.	*Hancock, Thomas S., Sweeting street, and Birkenhead.
P.	6th March, 1856.	Hardwick, Charles, Preston, and 100, City road, Manchester.
	12th Jan., 1854.	Harrison, William, F.S.A., F.G.S., &c., Galli- greaves hall, Blackburn.
	9th Dec., 1852.	*Harrison, Henry Walter, 27, Castle street.
	9th Feb., 1854.	Harrowby, Rt Hon. the Earl of, D.C.L., F.R.S.,
	·	Sandon hall, Staffordshire, and 39, Grosvenor square, London.
	23rd April, 1857.	Hartington, Most Noble the Marquess of, M.P., Chatsworth, Derbyshire, and Devonshire house, London.
•	10th Feb., 1853.	*Hartley, John Bernard, The Grove, Allerton.
P.	11th Oct., 1854.	*HARTNUP, J., F.R.A.S., Observatory, Vice- PRESIDENT.
	23rd Nov., 1848.	
	27th Sept., 1854.	*Healey, Samuel R., 48, Castle street, and West- bank, Woolton.
	23rd Nov., 1848.	*Heath, Edward.
	24th Oct., 1854.	Heginbottom, George, Albert terrace, Ashton- under-Lyne.
	11th May, 1854.	
	8th May, 1856.	*Henderson, William, 13, Church street, and Rock park, Birkenhead.
	23rd Nov., 1848.	
	23rd Nov., 1848.	
P	. 23rd Nov., 1848.	
P	. 4th Jan., 1849.	*Hibbert, Thomas Dorning, 39, Sackville street, Everton.
P	. 23rd Nov., 1848.	
P	. 12th Sept., 1854.	HIGGINS, Rev. HENRY H., A.M., Rainhill.
P		
P.	21st Sept., 1854	
	26th April, 1855.	*Hinde, Rev. Edmund, A.M., 36, Hope street.
P		
	23rd Sept., 1854.	

#### XEXTERS.

1st Dec., 1859. \*Hodgkin, John Eliot.
12th Jan., 1860. \*Holden, Adam, 48, Church street.
18th Dec., 1858. Holden, Thomas, Springfield, Bolton.
18th Feb., 1862. Holt, Charles, Bolton.
24th Sept., 1854. \*Holt, William D., 23, Edge hill.
10th May, 1860. \*Hornby, Gerard, 177, Breck road, and 36, South Castle street.
18th May. 1867. \*Hornby, W. 46 South Castle street. 7th May, 1857. \*Horner, W., 34, South Castle street, and Eldon house, Oxton. 23rd Nov., 1848. \*Horsfall, Thomas Berry, M.P., Bellamore hall, Staffordshire. Stationishire. 6th Dec., 1860. \*Houghton, James, 64, Rodney street. 14th April, 1853. \*Houghton, Richard, H., jun., Sandheys, Waterloo. 4th Dec., 1856. \*Howell, Edward, 6, Church street. 1ayor La. 1849-50. Howitt, Thomas, Lancaster. 8th Nov., 1849. \*Howson, REV. JOHN SAUL, D.D., Principal of the Collegiate Institution. Mayor La. 1849-50. **P**. 27th Sept., 1854. \*Hubback, Joseph, 1, Brunswick street, and Aigburth. Argburth. P. 10th Dec, 1857. \*Нсонжа, Јони 67, R., Rock View, South Hill rd. 14th Sept., 1854. \*Hughes, Joseph, 2, Upper Duke street, and 9, Brownlow hill. 16th Sept., 1854. \*Hughes, J. B., 77, Mill street, and 4, Clayton 16th Sept., 1854. \*Hughes, J. B., 77, Mill street, and 4, Clayton square.
6th April, 1854. Hughes, Thomas, 2, Groves terrace, Chester.
6th Feb., 1852. Hulton, William Adams, Hurst Grange, Preston.
ayor Ch. 1851-52. Humberston, Philip Stapleton, M.P., Chester.
23rd Nov., 1848. \*HUME REV. ABRAHAM, D.C.L., LL.D., F.S.A., F R S. North Aut. Copenhagen, Corr. Mem. S A. Scot., Hon. Mem. of the Society of Antiquaries, Newcastle-upon-Tyne, 24, Clarence street, Everton, Hon SECKETARY.
21st May 1857. Humber Hamilton F R G S. Cooma Yana New Yana Mayor Ch. 1851-52. ₽. 21st May, 1857. Hume, Hamilton, F.R.G.S., Cooma, Yass, New South Wales.
 6th Jan., 1859. \*Hunt, Richard, 9, Castle street, and San Domingo vale, Breckfield road North. 9th Doc., 1853. \*Hutchison, Robert, 12, Sweeting street, and 6. Canning street J Ist April, 1852. «Jacob, John Gibbobn, 56, Church street. 5th Dec., 1861. «Jackson, William, Bedford road, Rock ferry. 23rd Nov., 1848. Jacson, Charles R., Barton Lodge, Preston. 15th April, 1858. «Jago, J. R., Revenue Building», and 37, Upper 23rd Nov., 1848. "Johnson, John H , 7, Church street, and Southport. 23rd Sept., 1854. Jones, Edward, The Larches, Handsworth. 3rd Jan., 1861. \*Jones, George, 36, Hanover street.

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#### MEMBERS.

3rd May, 1849. \*Jones, Morris Charles, 75, Shaw street. 2nd Dec., 1858. \*Jones, Robert. 7, Batchelor street. 6th Dec., 1849. \*Jones, Roger L., 1, Belvedere road, Prince's park. 15th Sept., 1854. Jones, Thomas, B.A., Chetham Library, Manchester. Jones, W. Hope, Hooton, Chester. 11th Dec., 1856. ĸ 5th Dec., 1861. Kendal, John, Fishergate, Preston. 23rd Nov., 1848. \*Keudall, Thomas, Rumford place, and Green lane, Wavertree. KENDRICK, JAMES, M.D., Warrington. Kershaw, James, M.P., Oaklands, Victoria park, Manchester. 3rd May, 1849. P. 11th Dec., 1856. 21st May, 1857. \*Kitchen, Joseph, Exchange street East, and Oak house, West Derby. L 6th March. 1862. \*Laird, John, M.P., Hamilton square, Birkenhead. 14th March, 1852. \*Lambert, David Howe, 5, India buildings, and Rock park, Rock ferry. LANGASHIBR, THE HIGH SHERIFF OF, VICE-PRESIDENT, ex officio. 23rd Nov., 1848. Langton, William, Manchester. 21st Sept., 1854. \*Lea, James, Surveyor, Egremont, Cheshire. 23rd Nov., 1848. Legh, G. Cornwall, M.P., High Legh, Knutsford. 1st Dec., 1859. Legh, W. J. M.P., Lyme park, Disley, Stockport. 2nd May, 1862. \*Leicester, Rev. Robert, A.M. 10th Dec., 1857. Leigh, Major Egerton, The West hall, High Leigh, Knutsford. 15th April, 1856. Leithead, H. F., Malpas, Truro. 4th March, 1858. Lindsay, Right. Hon. the Lord, M.P., Haigh hall, Wigan. 23rd Nov., 1848. \*Lingard, Alexander Rowson, Hooton, Chester. \*LivERPOOL, THE MAYOB OF, VICE-PRESIDENT, ex-officio. (R. Hutchison, Esq.) 14th Dec., 1848. \*Lloyd, John Buck, 54, Castle street, and Aigburth. 6th Jan., 1853. \*Longton, John. Peter's place, Rumford street, and Breck road. L and Breck road. P. 23rd Nov., 1848. Lord, Lieut. William, R.N., Southdown cottage, Weymouth. М 6th March, 1862. McCorquodale, Lieut.-Col., Newton-le-Willows.

P.

Thornton lodge, Merton road, Bootle. 5th May, 1853. \*Macrae, John Wrigley, 22, Hackin's hey, and Seaforth house, Seaforth.

6th Dec., 1849. \*M'Viccar, Duncan, Abereromhy square, and 7 Exchange buildings.

6th March, 1862. McCorquodale, Lieut.-Col., Newton-le-Willows.
14th Feb., 1861. McGill, Robert, Copperas hill, St. Helens.
15th April, 1858. \*McInnes, J., 26, Lightbody street.
3rd March, 1853. \*Macintyre, Peter, M.D., 56, Canning street.
27th Sept., 1854. \*Macfie, Robert Andrew, 30, Moorfields, and Ashfield hall, Neston.
21st May, 1857. McNicholl, David Hudson, M.D., Southport.
23rd Nov., 1848. \*M'QUIE, PETER ROSINSON, 28, Water street, and Thorpton Lodge Master pred Boxtle

#### MEMBERS.

	3rd Jan., 1849.	Manchester, The Lord Bishop of, F.R.S., F.G.S., Mauldeth hall, Manchester.
	23rd Nov , 1848.	
	23rd Nov., 1848.	
	1st Dec , 1859.	
<b>P</b> .		
•••		rington.
	9th March, 1854.	
	6th March, 1462	*Mathison, Wm , Laverpool and London chambers.
	15th April, 1858	Mawdsley, H . Southport.
P	23rd Nov. 1848	MAYER, JOSEPH, F.S.A., M.R. Asiat. S., F.E.S.,
		F.R.S. North Ant Copenhagen, Associé
		etranger de la Societe Imperiale des Anti-
		quaires de France, Hon Mem SS. Anti.,
		Normaudie, l'Ouest, la Morinie, Société d'Em-
		ulation d'Abbeville, &c , 68, Lord street, Vicz-
		PRESIDENT
	17th Feb., 1850.	Mayer, Samuel, Newcastle-under Lyne
	10th Feb., 1859.	Meaden, Henry Poter, Haslingden.
P.	15th April, 1858.	*MERCER, NATHAN, F.C.S., 7, Church street.
	10th Feb., 1859.	Mewburn, John.
₽.	6th Dec., 1819.	Middleton, Captain James, F.S.A.
	2nd Jan , 1862.	Milligan, James, jun, Longview, Huyton
	21st Feb , 1861.	Mills, John, Middle School, Warrington.
	10th May, 1860	Mills, Robert, F.S.A., F.G.S., 27, Promenade, Rochdale.
P	21st Dec., 1854.	*Milner, William, 322, Upper Parliament street, and Phoenix Safe Works, Windsor.
<b>P</b> .	1st Dec., 1859	*Mitchell, T. R., M.D., 20, Bedford street South.
	3rd Dec., 1857	Moore, Rev. Richard R., B. A., Harworth, Rotherham
<b>P</b> .	5th Nov., 1849.	*MOORE, REV. THOMAS, A.M., 65, Oxford street.
	18th Dec., 1856.	Moseley, Thomas Beeby.
	15th April, 1858	*Moss, J. B., 34, West Derby street.
2	23rd Nov., 1848	*Moss, Rev. John James, A.M., Upton, Cheshire.
₽.	7th March, 1850	*Mott, Albert J., 21, South Castle street, and Holt
		hill, Birkenhead.
		*Moult, William, 21, Leigh street, and Knowsley
	21st May, 1857.	
	11th Dec., 1856.	Myres, John James, Bank parade, Preston.
		N
	H.S. Ches., 1857.	Naylor, Richard, Hooton, Cheshire
	23rd Nov., 1844.	
		cromby muare
	15th April, 1858.	*Newlands, J., Public Offices, Cornwallis street.
•	6th Dec., 1855.	Newton, John, M.B.C.S., 13, West Derby street
	23rd Nov., 1848.	Nicholson, James, F.S.A., Thelwall hall, War- rington.
	6th Marob, 1862.	
	29th Sept., 1854.	*Notting: am, John, M.D., F.R.A.S., F.R.S.
	•	Northern Antiquaries, Copenhagen, 20, Ros- common strest.

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MEMBERS.

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2nd Jan., 1851. Oates, Captain W. C., Cavendish place, Bath. P. 6th Dec., 1849. Ormerod, George, D.C.L., F.R.S., F.S.A., F.G.S.,
Sedbury park, Chepstow. 6th Feb., 1851. Osborne, John James, Macclesfield.
3rd Jan., 1850. *Overend, James, 55, Hope street.
3rd Dec. 1857. Oxley, Frederick, 31, John street, Bedford row, London, W.C.
P
23rd Nov., 1858. *Paris, Thomas Jeremiah, 68, Lord street.
Srd Jan., 1850. *Parker, Charles Stewart, Bank chambers, Cook street.
18th Dec., 1856. Parker, Robert Townley, Cuerdon hall, Preston.
7th March, 1850. Patten, John Wilson, M.P., Bank hall, Warrington.
2nd Nov., 1854. Patterson, Andrew, Principal of the Deaf and Dumb Iustitution, Manchester.
9th Oct., 1854. *Peacock John, 2, Chapel street.
6th Dec., 1849. Pearce, George Massie, Hackin's hey, and Ormskirk.
11th Dec., 1856. <i>Pedder, Henry Newsham</i> , 9, Queen's gate, Prince Albert road, South Kensington, London, S.
23rd Nov., 1848. Pedder, Richard, Winckley square, Preston.
8th Dec., 1851. Perrin, Joseph, 63, Wellington road North. Stockport.
21st March, 1861. Petty, Thomas Shaw, Preston.
P. 6th Jan., 1849. *Picton, James Allanson, F.S.A., Queen In- surance buildings, Dale street, and Sandy- knowe, Wavertree.
3rd May, 1849. Pierpoint, Benjamin, St. Austin's, Warrington.
23rd Nov., 1858. Pilkington, James, M.P., Park place, Blackburn.
10th Feb., 1853. Platt, Robert, Stalybridge.
6th Dec., 1849. Poole, John.
29th Dec., 1854. Porter, Rev. James, A.M., St. Peter's College,
Cambridge.
12th March, 1857. *Preston, Geo. Theo. Robert, 13, Vernon street, Dale street, and Rock house, West Derby road.
6th Dec., 1849. *Preston, William, 13, Vernon street, and Rock house, West Derby road.
R
23rd Sept., 1854. *Rathbone, William, 24, Water street, and Green- bank, Wavertree.
15th March, 1849. Rawlinson, Robert, C.E., F.G.S., Sanitory Com- missioner, Local Government Act Office, 8, Richmond terrace, Whitehall, and Lancaster lodge, Boltons, West Brompton, London, S.W.
13th Sept., 1854. *Raynes, James Trevelyan, 37, Oldhall street, and Rock park, Rock ferry.
5th Dec., 1861. *Read, Joseph, 17, Upper Huskisson street.
23rd Nov., 1848. *Reay, James, Guardian Office, Commerce court, Lord street.

Lord street. 23rd Nov., 1848. \*Reay, Thomas, 213, Upper Parliament street.

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MEMBERS.

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29th Dec., 1854. Rees, William, Old Trafford, Manchester.
14th Dec., 1848. *Robin, John, Chapel walks, South Castle street,
and Grove hill, West Kirby, Birkenhead.
20th Dec., 1855. Robin, Rev. P. R., A.M., Woodchurch, Birkenbead.
28rd Nov., 1848. * Robinson, Charles Backhouse, 12, Myrtle street,
and Matilda grove, Aigburth.
. 8rd May, 1849. Robson, John, M.D.
Srd Jan., 1850. *Ronald, Robert Wilson, 19, Dale street.
15th April, 1858. Rooke, Rev. W. J. E., Tunstal Vicarage, Kirkby
Lonsdale.
15th April, 1858. Rowlinson, W., Windermere.
25th Sept., 1854. Rylands, Peter, Bewsey house, Warrington.
P. 13th Dec., 1854. Rylands, Thomas Glazebrook, F.L.S., Warrington.
S
3rd Jan., 1861 Samuelson, Edward, Huyton.
6th Dec., 1855*Sandbach, W. R., Bank buildings, Cook street,
and The Cottage, Aigburth.
P. 19th Sept., 1854. Sansom, Rev John, BA.
P. 7th Sept., 1851. *SANSON THOMAS, F.B.S.E., 18, Breckfield road
South, Everton.
23rd Nov., 1848. *Schofield, Henry D., M D., 14, Hamilton square,
Birkenhend.
8th Jan., 1852. Sharp, John, The Hermitage, Lancaster.
2nd June, 1853. Sharp, William, 102, Piccadilly, London.
23rd Nov., 1848. Sharpe, Edmund, A.M., Coedfa, Llanrwst, North
Wales.
1st Dec., 1855. *Shawe, J. R., Arrowe hall, Birkenhead.
7th Feb., 1850. *Sherlock, Cornelius, 22, King street.
11th Feb., 1858. *Shute, Arthur, 21, Water street.
23rd Nov., 1848. Simpson, Rev. Sumuel. A.M., St. Thomas's Par-
sonage, Dougias, Isle of Man.
23rd Nov. 1848. Skuife, Thomas, Vanbrugh house, Blackheath,
London.
<ul> <li>2nd May, 1850. Smith, James, Seaforth.</li> </ul>
16th Sept., 1454 Smith, John. Langley, near Macclesfield.
6th Jan., 1853 *Smith, William Penn, 26, Hanover street.
23rd Nov., 1849 *Snowball, J. G., 10, Castle street, and 11, Upper Canning street.
2nd Nov., 1854. Stainer, William, Old Trafford, Manchester.
3rd Jan., 1856. Staniforth, Rev. Thomas, Storrs, Windermere.
6th March, 1862. Stanley, Right How the Lord, Knowsley hall,
Lancashire, and 23. Saint James's square, London, S.W.
18th Dec., 1955. Steiner, F., Hyndburn, Accrington.
30th Dec., 1854. *Stewart, James Gordon, Woodlands, Clifton park,
Birkenhead
5th June, 1850. *Stock, John, 7, Exchange buildings, and West-
dale, Wavertree.
6th March, 1862. *Stonehouse, James, 25, Phythian street.
8th Nov., 1849. *Stuart, William.
23rd Nov., 1849. *Sutton, Hugh Gaskell, Exchange court, Exchange
street East, and Wood end, Aigburth.
4th March, 1862. •Sykes, James, Colonial buildings, 34. Dale street.

th March, 1992. \*Sykes, James, Colonial buildings, 34, Dale street, and Breckhouse, Poulton-le-fylde.

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### MEMBERS.

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- T 6th Dec., 1860. \*Taylor, Rev. W. F., LL.D. 1st Dec., 1859. 'Thicknesse, Rev. T. H. P. 28rd Nov., 1848. \*Thom, Rev. David, D.D., Ph.D. 18th Feb., 1858. \*Thompson, Henry, 153, Upper Parliament street, and 11, North John street. P. 8th Dec., 1851. Thornber, Rev. William, B.A., Blackpool. 13th Sept., 1854. \*Thornely, Samuel, 31, Edge lane. 8th Dec., 1851. \*Tinne, John A., F.R.G S., Bank buildings, and Briarley, Aigburth. Mayor Liv. 1854-55. \*Tobin, James Aspinall, 57, South John street. 14th Dec., 1848. Tobin, James Aspinall, 57, South John street. 14th Dec., 1852. \*Torr, John, 15, Exchange buildings, and Eastham. H.S. Lanc., 1857. Towneley, Charles, Towneley hall, Burnley. P. 2nd April, 1857. \*Towson, JOHN THOMAS, F.R.G.S., 47, Upper Parliament street, and Sailors' Home. 14th April, 1853. \*Turner, Charles, M.P., 4, Lancelot's hey, and Dingle head. 27th Sept., 1854. \*Turner, John Hayward, 23, Abercomby square. (th Dec., 1854.

  - 27th Sept., 1854. \*Turner, John Hayward, 23, Abercromby square. 6th Dec., 1849. Turner, Edward, High street, Newcastle, Staffordshire
  - 16th Dec., 1858. \*Tuton, E. S., 48, Lime street.

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8th March, 1854. \*Underwood, Rev. Charles W., A. M., Vice-Principal, Collegiate Institution.

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- 23rd Nov., 1848. \*Varty, Thomas, Walpole villa, Fairfield. 14th April, 1853. \*Vose, James, M.D., 5, Gambier terrace, Hope street.

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Myr. C. 1838-39, 48-49. Walker, Sir Edward Samuel, Berry hill, Mans-field, Notts. 11th Dec., 1856. Walmsley, Thomas, Preston.

- 11th Dec., 1856. 6th March, 1851. Warburton, Rowland Eyles Egerton, Arley hall, Cheshire. Ward, John Angus, Hooton Lodge, Chester. Wardell, William, Abbotsfield, Chester.
- 21st May. 1857. 10th Dec., 1857.
- 26th Sept., 1854.

- 10th Dec., 1857. Wardell, William, Abbotsfield, Chester.
  5th Dec., 1861. \*Waterhouse, Nicholas, Rake lane.
  6th June, 1850. \*Waterhouse, Sebastian, 87, Catharine street.
  26th Sept., 1854. \*Watling, J. W. H., Wavertree.
  5th Feb., 1857. Watt, Richard, Speke hall.
  17th Dec., 1857. Watts, Sir James, Manchester.
  2nd May, 1850. Way, Albert, A.M., F.S.A., Wonham manor, Reigate, Surrey.
  1st Feb., 1849. \*Webster. George, 6, York buildings, Dale street, and Mosley hill, Aigburth.
  3rd Jan., 1856. Welton, Thos. A., F.S.S., 13, Cumming street, Pentonville, London.
  th March, 1862. Wensleydale, Rt. Hon. the Lord, Ampthill park, Ampthill.
- 6th March, 1862. Ampthill.

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#### MEMNERS.

	6th Dec., 1860.	White, Charles, M.R.C.S., Warrington.
	and June, 1458.	*Whitley, George, 5, Clayton square, and Brom borough.
	9th Oct., 1854.	Whitley, Rev. John, A.M., Newton rectory, Warrington.
	6th June, 1850.	Whitley. Rev. William, B.A., Catsclough, Wins- ford, Cheshire.
<b>P</b> .	<b>30th</b> Nov., 1854.	Wilkinson, Thomas Turner, F.R.A.S., Corr. Mem Lit, and Phil. Soc. Manch., Burnley.
	8th Jan., 1852.	*Willoughby, Edward G, Marine Cottage, Traumere.
	6th Dec., 1855	Wilson, G., F.R.S., Belmont, Vauxhall, London
	14th Feb., 1861.	Wilson, J. M., Hardshew street, St. Helens,
	28rd Nov., 1848.	Wood, Venerable Isaac, A M., Archdeacon of Chester, Newton, near Middlewich
	23rd Nov., 1848.	Wood, Isaac Moreton, A.M., Newton, near Middlewich.
	7th May, 1451.	* Woodhouse, John George, 117, Henry street.
	30th Dec., 1854.	

	HONORARY MEMBERS.
<b>6th F</b> eb , 1851.	Akerman, John Yonge, Hon, M.R.S.L.; F.S.A. Newcastle; F.R.S. of Northern Antiquities. Corr. Mem. 85, Antiq. Scot., France, Russia, Switzerland, Rome; Hon. Mem. Roy, Acad. Stockholm; Somerset House, London
27sh Sept., 1854	Babington Charles Cardale, A.M., F.R.S., F.I.S., Sec. C.P.S., St. John's College, Cambridge
6th Feb., 1851.	Blaauw, William Henry, A.M., F.S.A., Beechland, Uckfield
6th Feb., 1851.	Bouleau, Sir John P. Bart, F.R.S., F.S.A., Ketteringham hall, Wyndham, Norfolk, and 20. Upper Brook street, Grosvenor square, London.
27th Sept , 1854	Brewster, Sir David, K.H., D.C.L., LL.D., F.R.88.L., and E., Hon, M.R.I.A., Saint Andrew's, N.B., and Allerby, Roxburghshire
1st Nov., 1860.	Brown, James, New York, U.S.A.
6th Feb., 1851.	Charlton, Edward, M.D., F.S.A. Newe., 7, Eldon square, Newcastle-mon-Tyne
r. 1st Feb., 1855	Clarke, Joseph, F.S.A., Saffron Walden, Essex
19th May, 1459.	Cochet, M. L'Abbe, Inspector of Antiquities and Monuments in Normandy, Dieppe.
8th Jan., 1~52.	De Perthes, J. Boucher de Crevecœur, Chevalier des ordres de Malte et de la Legion d'honneur, membre de diverses Societés Savantes, Abbe ville.
6th Feb., 1851.	Duncan, Philip B , D.C L , Oxford.
<b>27th</b> Sept., 1854	Gray, John Edward, Ph D. F.R.S., F.L.S., V.P.Z.S., Pres. Entom. Soc., &c., British

- P. 37th Sept., 1854. Latham, R. Gordon, M.D., F.B.S., Greenford, Middlesex.

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	9th Dec., 1852. 27th Sept., 1854.	MacAdam, Robert, 18, College square, Belfast. Murchison, Sir Roderick Impey, G C.St.S., A.M., D.C.L., F.R.S., V.P.L.S., F.G.S., V.P.B. Geogr. S., Hon. M.R.I.A., Director-General of the Geological Survey of Great Britain and Ireland; Trust. Brit. Mus.; Hon. Mem. Acadd. St. Petersburgh, Berlin, Copenhagen; Corr. Mem. Inst. France, &c., 16, Belgrave square, London.
	27th Sept., 1854.	Owen. Richard, M.D., LL.D., F.R.S., F.L.S., F.G.S., British Museum, London.
P.	7th May, 1851.	Pigeon, Henry Clarke, 3, Westbourne villas, Harrow road, London.
	27th Sept., 1854.	Phillips, John, M.A., LL.D., F.R.S., Pres. Geol. Soc., Reader in Geology, Oxford.
	27th Sept., 1854.	Rosse, The Earl of, K.P., D.C.L., F.R.S., F.S.A., F.R.A.S., F.G.S., Birr Castle, Parsonstown, Ireland.
	27th Sept., 1854.	Sabine, Major General Edward, R.A., D.C.L., Treas. and V.P.R.S., F.R.A.S., 13, Ashley place, Victoria street, London, and Woolwich.
	27th Sept., 1854.	Sedgwick, Rev. Adam, A.M., F.R.S., F.G.S., F.R.A.S., Hon. M.R.I.A., Woodwardian Pro- fessor, Trinity College, Cambridge.
P.	6th Feb., 1851.	Smith, Charles Roach, F.S.A., Member of the Roy. Soc. North. Antiq. Copenhagen; Hon. Mem. SS. Antiq., France, Normandy, Scotland, Spain, Newcastle, the Morinie, Abbeville, Picardy, Wiesbaden, Luxemburg, Treves, Touraine, &c., Temple place, Strood, Kent.
	6th Feb., 1851.	Turnbull, William B. F.S.A. Scot., 3, Stone buildings, Lincoln's Inn London.
	27th Sept., 1854.	Whewell, Rev. William, D.D., F.R.S., F.G.S., F.R.A.S., Hon. M.R.I.A., Corr. Mem. of the Institute of France, Master of Trinity College Cambridge.
	6th Feb., 1851.	Williams, Rev. John, A.M.
	6th Feb., 1851.	Willis, Rev. Robert, A.M., F.R.S., Jacksonian Professor, Cambridge, and 23, York terrace, Regent's park, London.
P.	27th Sept., 1854.	Wright, Thomas, A.M., F.S.A., Hon. M.R.S.L., Member of the Institute of France; of the Roy. Soc. North. Antiqs. Copenhagen; Hon. Mem. of the Soc. of Antiquaries of France; Corresp. Mem. Soc. Antiq. Normandy; of Soc. Antiqs. Scotland, &c., 14, Sydney street, Brompton, London.

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### TRANSACTIONS.

### ON THE MIGRATION OF POPULATION IN GREAT BRITAIN.

By Nicholas Waterhouse, Esq.

(READ 9TH JANUARY, 1869.)

The migrations within the limited space of our own island may not have produced the wonderful effects which we, during the last fifteen years, have witnessed through that great exodus which bore away so many of the natives of the sister island to the United States and the Colonies; still, though they may not have exhibited so marvellous a train of moral and social results, they are not destitute of interest; and at the conference of the Social Science Association of 1860, one part of this subject, namely, the manner in which the Irish labourer was competing with, and in many cases supplanting, the native-born labourer of Glasgow, was mentioned by Sir James Emerson Tennent, no mean authority, as a subject peculiarly worthy of investigation.

It is not in a social point of view that I bring the subject before this Society, but rather as a subject of interest to the ethnologist. On the races of the past he draws his inferences from the remains of buildings, from the vestiges of funeral monuments, from manuscripts written in characters almost forgotten, from coins or instruments which the kindly earth may have preserved from destruction, and from the names of ancient places. For more recent times, he derives information from dialects and changes of language, or from manners and customs fast waning away; whilst it is more especially the province of the statist to supply him with facts as to the changes which are going on around.

When we see the great changes in the social and economical condition of Great Britain, the immense increase of population, the vastly increased facilities of communication, the spread of education among the labouring classes regulated by one central body, one is tempted to conclude that this little island of ours is being fused down to one dead level of uniformity, where local affections and local habits and local characteristics will be entirely lost. This no doubt is the tendency of the present time, but I think it will be possible to shew it is still a tendency only, not an accomplished fact.

Let us take the census of 1851 as our guide, and confine our investigations to the tables shewing the birthplaces of that part of the population which is twenty years of age and upwards, leaving the rest out of sight as little affected by migration. In the first place, how many and what proportion of the adult inhabitants of England and Wales in 1851, were native born? 'The answer is 9,246,071, or 94 per cent. of the whole number living within its bounds.\* The ancient stream of immigration which has so long guided Scotchmen to the southern bank of the Tweed, the immigration from Ireland intensified by the untold calamities of the famine year of 1846-7, the reciprocal effect of our great colonial empire, and our vast commerce with the whole world, have only introduced an extraneous element into the population of England to the extent of one eighteenth of our population. Let us now consider how this English element ebbs and

• See Table I., p. 25.

flows, and becomes in some degree mingled with other foreign elements. In doing so, I shall make use of the eleven great divisions of England and Wales which are adopted in the consus, as affording a better view than the separate counties, of the natural characteristics and ancient landmarks of the country. Yet even here one sees neighbouring districts exhibiting social differences of the greatest importance. For instance, in the border counties, the eastern slopes of the mountains to the German ocean, with their large properties and extensive arable farms, their "bondage" system of labour, their rich church lands, their vast stores of mineral wealth, and rapidly increasing population of miners, are a great contrast to the small freeholds of the "statesmen," the bad tillage, the very meagre provision for the clergy, who are often of the peasant class, the many educational charities, the many customs of the olden time, which one meets with in the lake district of the West-moor-land.

If we examine these eleven great divisions, \* we find that the metropolis and the North Western counties give strong evidence that they are largely indebted to other parts for their population, and that they are inhabited by a very mingled race. The metropolis especially contains a much smaller proportion of native-born inhabitants than any of the other great divisions of England—of every hundred of its adult inhabitants fifty-four claim some other part as the place of their birth.

London, the million-peopled city, is in fact the great heart of England, which throbs and beats in unison with every other part of the kingdom, and does so the more fully, because it largely draws its population from them all. Deprived of them, of all save those who were born within its bounds, half of the vast bulk of the metropolis would at once disappear. The number of adult immigrants in London exceeds the number of adult inhabitants of four of the ten great divisions

• Table III., p. 25.

of England, of the adult population of Wales, and of the adult population of Scotland north of Loch Long and the Frith of Tay; it is also nearly twice as great as the number of adult Irish in England-so vast and strong has been the current which has flowed to the metropolis during the present century. No doubt the same attractive power has always existed : Saxon monks and nobles with their train of villains made their way to the burgh of the sainted Confessor--Norman barons and men-at-arms came there to offer their services to our Plantagenet kings-in greater numbers flocked there the merchants and shipmen who built up the kingdom of our great Tudor monarchs; but scant and trifling indeed was that influx compared with the one which the present generation has witnessed. Chiefly, this is due to the greatly increased means of communication, to the network of railways, which, like a system of arteries, link the limbs to their great heart, and yearly keep bringing up fresh accessions of numbers from an everwidening aircle.

Let us now observe the course of this current towards London, map out its boundaries, and enumerate the streams and little rills which help to swell its size. The greatest of these streams is from the ancient county of Kent, the land of Houghst and of Horsa: as the earliest Saxon kingdom it has a right to take the lead. Of all the adults who were born in its old baronial halls, or homesteads of a humbler class amid their hop gardens and hazel woods, one-fifth are to be found within the bounds of the metropolis. As in the middle ages when the ancient Pilgrims' way led crowds from Southwark to a'lleakat's shrine at Canterbury, so in this utilitarian age crowds far greater come along the iron way to London. From the pleasant hills of Surrey comes another large accession, much smaller in numbers but bearing a larger proportion to the natives of the county. From the cliffs and woodlands of HUMBER, from the royal county of Berks, come other streams,

smaller indeed in size, but of ample proportions when compared to their parent source. Hampshire, once laying claim to the capital of England, where a long line of princely bishops wrought great deeds in the mediæval times, pours in a stream greater than either of the last. Altogether, these five South-eastern counties contribute more than a tenth of the total population of London; their contingent is rather less than a quarter of the number of the native born inhabitants.<sup>6</sup>

Next in order come the three agricultural counties of East Anglia and Essex, which send in more than seven per cent. of the population of London. The eight South-midland counties, bounded by the Thames on the South, and the mineral and manufacturing districts on the North and West, add another seven per cent. to the teeming swarms of the metropolis. This division is the region of the minor household manufactures of straw plaiting, of lace making, of shoe making, &c., and also includes the southern portion of the Fens.

Very nearly as large a number come from the five southwestern counties, containing the greater part of ancient Wessex and of Cornwall. Wiltshire, with its wide extending plains, has sent a tithe of its sons. Dorset, a rather smaller proportion. A tithe have also come from the verdant meadows of Somerset, the last stronghold of Saxon freedom. From Devon, beautiful Devon, with its lovely coast and garden-like valleys, the birthplace of some of the chiefest of our naval heroes, judges and painters, about a tenth have gone to London. The natives of Devon in London are more numerous than those of any other county excepting Kent and Essex, they are more numerous than the natives of Scotland, and about equal to the natives of Yorkshire and Lancashire in London taken together. This is the more remarkable, as

<sup>·</sup> For details, see Tables III. & IV., p. 36.

Devonshire is from 150 to 214 miles from the metropolis, nearly as far as the West Riding, and exhibits most of the features of a distinct province. When we look to the western bank of the Tamar, we find an immediate diminution in this army of recruits for the capital.

I have now enumerated nearly four-fifths of the inhabitants of London in 1851, and it appears that these four divisions, containing about three-eighths of the extra-metropolitan population of England, have contributed thirty-two per cent. of the adult population of London. This district, containing what has been termed the great eastern or south-eastern plain of England, is almost destitute of mines, of metals, or of coal : from the North Foreland to Plymouth Sound it must be nearly 270 miles in length, from the coast of Norfolk to Beechy Head it must be more than 150° miles in breadth, the influence of London being largely felt nearly three times as far to the west as to the north. A line drawn along its north-western border from the Tamar to the Trent would just cut off the counties which are so nearly allied to London. This district of England was the chosen seat of the Saxons, a race loving justice, the arts of peace and the celebration of religious rites. Here we find the east Saxons, the middle Saxons, the south Saxons, the west Saxons. The very small occlesiastical and municipal divisions tell us how long this land has been settled, whilst names of Norman-French and monkish Latin tell us how completely it was conquered, and how long it was ruled by another and a sterner race.

Northward of this line we find that the country assumes a more rugged character, the hills attain a greater altitude, till towards the north and west they become mountain ranges, rich in mineral ores and coal. This northern district contains more than half the inhabitants of England, and much more of the Danish element than any other part. Yet even here the attractive power of the metropolis, though much diminished,

is very strong; every county sends far more representatives to the capital than it receives back again. Lancashire is the only one where the current north and the current south are about equal. Altogether, these five northern divisions, containing the kingdoms of Mercia and Northumbria, contribute more than nine per cent. of the adult population of London. Thus fully seven-eighths of its population is derived from the Saxon, Norman and Danish districts of England, having but slight intermixture of Celtic blood. Its position is a sufficient explanation of this.

How different would have been the past history of Britain if another capital had been chosen ! For instance, if our Norman monarchs had selected the city of the west Saxons for their residence, its position would have been far more convenient for communication with their continental possessions; fleets from Havre and the Seine would then have transported vastly larger bands of Frenchmen to the very capital of England; the whole nation would have been more strongly embued with the French element, and very probably our language itself might have been considerably altered. The quaint old town of Winchester, which one chiefly knows from the memorials of its princely prelates, of Beaufort, of Waynfleto and of Wykeham, would now have become a vast metropolis, with the court, the palaces of the nobility, the halls of law and of learning clustering around St. Swithin's shrine; in an almost unbroken line it would have extended to the sea, where a port, unrivalled for size and position, would have received the commerce of the world. Instead of a fow mail steamers or trim fast sailing yachts, Southampton water would have been hidden by vessels of every size and every build, from every maritime country on the globe. The Isle of Wight would have been entirely covered by the villas of the wealthy citizens, and the woodland glades of the New Forest would have given place to the mansions of the great. London would

have presented a still stranger aspect; in such circumstances, it might now be a city more remarkable for its antiquity than its size, proud of its Roman remains and the stories of its Saxon kings. Bristol, with a large mining district close at hand, admirably situated for trade with the West Indies and America, might now be the larger town. London might merely be engaged in the commerce of a few corn-growing counties, its merchants anxiously scheming how to draw the Baltic trade away from their rivals of Hull and Aberdeen. The Reformation might have laid its iron hand on the work of the sainted Confessor, and inhabitants of London, with no idle boast, might tell their northern friends that the beauties of Melrose and of Fountains must give place before the light airy arches, the ivy-clad walls and ruined towers which they could shew on the wooded banks of the Thames. But such was not to be the destiny of England ; her mighty heart must be shielded from our brave rivals of France; it must be placed far from the Celtic regions of Britain, where it could beat freely and safely on the shores of her own German Sea, where the mystic Rhine-stream mingles in her waters, and murmurs of that fatherland whence we have derived our "wonderful and intelligent solidite"; where we may still regard those sober Dutch and Hanse towns which have imparted to us their aptitude for commerce and manufactures, and where the wild north-easter which sweeps across their waters may tell us of another race, who, launching from their rocky fiords, have taught us to love the hoarse music of the winds, and to find a home on the stormy deep.

But to return to the population of modern London. The most numerous portion of those whom we have not yet enumerated come from the sister island, one adult in sixteen being of Irish birth. The proportion is about half as great as in Lancashire, but it exceeds that of any of the other great divisions of England, and is twice as great as that of York-

This large influx is very remarkable, as London is shire. not very accessible from Ireland-a voyage and a long land journey lying between, that land journey through a part of England where labour is well paid, whilst in the Metropolis it has to compete with the surplus population of some of the poorest counties of England. The number of Scotchmen is considerably less, not a third of that of the natives of the sister island; still the proportion of them in London, one in fifty-two, is as great or greater than in any other division of England, except the border counties. The number of Scotchmen in London (26,847), is nearly as great as in the two counties of York and Lancaster taken together (28,117). Compared with the other elements of the population of London, the number of Welsh seems small, only 1.1 per cent.; yet no town in North Wales, and only three in South Wales, in the mining county of Glamorgan, can lay claim to numbers as great.

I think in all migrations, we may safely conclude that the further a man has come, the greater will be the effect he produces; that he will possess a bolder, stronger and more adventurous, though probably a more selfish spirit than those who have always dwelt under the same roof tree. Thus though only every sixtieth adult in London was the subject of some foreign state, we shall not be wrong in estimating their influence, both as largely engaged in many varied branches of trade and commerce, and as the representatives of many powerful states, much more highly than this proportion indicates. The Germans were much the largest body of foreigners in London, (8132) being nearly twice as numerous as the sons of France, (4752) who fill the second place-then the natives of Holland, (1497) and the sons of sunny Italy, (1378) who nearly equal the mercantile and sea-faring Dutch ; no other foreign state had a thousand adults in London on the census night of 1851. The citizens of the United States only

numbered 755;—these would probably belong to the well-todo classes, whilst the four first-named countries have sent large numbers of workmen, artizans &c. The number from the Colonies is not large, those born in the East Indies, (2191) stand first; the West Indies, (2046) send nearly as many; Canada, (958) stands third, contributing a larger number than the United States. The other colonies are but slightly represented. Altogether, every hundred and fiftieth adult in the metropolis was born in the Colonies. Such are the varied elements to be found in the greatest city, not only of the Anglo-Saxon race, but also of the world.

The metropolis is powerful from its immense extent, and from the influence which its thronging multitudes, drawn from all parts of the country, exercise on the places of their birth. Nearly a seventh of the adult population of England and Wales is to be found within its boundaries; the question we have now to ask is, whether there is any counteracting force setting other streams in motion, and counterbalancing this great numerical concentration. A century or two ago the provincial capitals Norwich, Exeter, Shrewsbury, York &c., maintained a certain rival position to London in the agricultural counties. At the present time improved means of communication have entirely destroyed the influence of the county towns, whilst they have vastly increased the metropolis. But another element has sprung into existence, altering the face of our social system. If we look northwards, and especially to manufacturing Lancashire, we shall find the counterpoise we are seeking for. If London has rapidly increased in numbers, Lancashire has increased far more rapidly. There has been, however, a vast difference in the manner of their increase. London has progressed from the vast influx of heterogeneous elements from other parts, but the progress of Lancashire has been chiefly due to the rapid increase of its native-born population. London must also

continue to depend for the bulk of its citizens on other parts of the country, because its adult inhabitants, those over 20 years of age, exceed those who are under that age by 44 per cent. ;---the excess in the rest of England, (almost the same in every other great division), being only 18 per cent. Two hundred years ago, Lancashire was a poor and remote county. In 1636, it only produced £1000 for shipmoney, when Devon paid £9000, Suffolk £8000, and Wilts £7000. In 1690, its population, calculated from the Hearth Books, was equal to that of Kent, less than that of Suffolk.\* Now it out-numbers every other county in England, and at the present rate of increase will presently out-number the whole of Scotland. It is unnecessary to relate the oft told story of this wonderful change; how this land of sandy plains, peat mosses, and cold unpromising moorlands, in a century and a half has acquired an influence in some respects equal to that of the capital; how the coal-mine and the cotton plant have been the two great supporters of this progress, but this would never have been fully developed, if it had not been for the industrious self-reliant character of her original inhabitants.

More than three-fifths of the adult population of Lancashire were born within her borders.<sup>+</sup> The stream to her from other parts of England is not a very long one; it flows very strongly from the kindred county of York, which contributes nearly a twentieth of its inhabitants, and the county palatine of Chester is almost as valuable an ally. From the fells of Cumberland and Westmoreland, from the Peak district of Derbyshire, from Staffordshire with its varied kinds of industry, from the mining and agricultural county of Salop, pour in other tributaries of considerable size. The rest of England is but feebly connected with Lancashire. Altogether more than four-

<sup>•</sup> Eden's State of the Poor. + Table VIII., p. 28.

fifths of its inhabitants are of English birth. The proportion of Scotch is as large as in London, of Welsh and Irish twice as great-the latter form just an eighth of the inhabitants of the county. In speaking of the migrations of population in Lancashire, we should divide it into two parts. In one, consisting of the mining, agricultural and manufacturing districts, which contain sixty-one per cent. of the whole population, the number of immigrants from other parts is below the average for the whole of England; whilst in the other, consisting of the two commercial towns, Manchester, capital of the buyers and sellers of cotton yarn and of cotton cloth, and Liverpool, capital of the western seas of Britain, we find a very mingled race of inhabitants. First, as to Manchester;\* half its adult population were born in Lancashire, about one in fourteen in Cheshire, a somewhat smaller proportion in Yorkshire, one in forty in Derbyshire-the proportion from other parts of England is but small. The other counties of England contribute half as much as Lancashire, or about a quarter of the inhabitants of Manchester. The rest of the population is chiefly Irish; for every forty-four Englishmen there were about ten Irishmen, for every thirty Englishmen one Welshman, and for every thirty-two Englishmen one Comparing this population with London, we Scotchman. find it has been drawn together from a much narrower district, that there is a far greater unity in its composition. This unity of race pervades the neighbouring towns in a still greater degree. It in a great measure accounts for the large influence and political power which of late years has been acquired by Manchester; for, connected with her by unity of feeling and unity of race, as well as by unity of interest, some thirty towns have followed her lead. At the same time, the metropolis, with far greater wealth, far greater learning and intelligence, but with a population rapidly but casually drawn

• Table VII., p. 27.

together from all parts of the kingdom, has by no means increased in influence in proportion to its increase in numbers; reminding one of the fable of the sticks which were not bound together.

If we regard Liverpool,\* we see her seated on the shores of the great Irish sea, as it were at the centre of the British Isles; proudly she rests there with the open sea before her, and the commerce of the world flowing to her port. Her population is almost as mingled as the shipping which frequents her docks-she may claim to be the least English town in England. The native born population of Liverpool is less than a quarter of the whole, and if we add to this, the inhabitants coming from other parts of the country, chiefly from the sandy coasts on the east, and the dales in the north, we find that less than a third of the adult inhabitants of Liverpool were born in Lancashire. The neighbouring county of Chester sends a far smaller contingent than to Manchester, not one in twenty-two of the men of Liverpool;-the great province of York fewer still. We shall soon find that the population of Liverpool has come there chiefly by water. Thus, Cumberland and Westmoreland have contributed a full thirtieth of the population of our town, much more than Yorkshire. Whilst Liverpool contains only six out of every thousand natives of the latter county, it contains fifty-five out of every thousand natives of Cumberland. As some of the streams from the north of Shropshire flow into the Dee, so that county has sent one out of forty of its native-born population. The commerce of London and that of Liverpool have a reciprocal influence on each other; so we find that the former has contributed one-fiftieth of the population of the latter. It is quite one of the largest migrations from London. The interior of England is poorly represented, and so are the castern coasts. Of the Southern counties, Devonshire, (the

• Table VI., p. 27.

small ports of which were once the seats of a flourishing trade with the cod-fisheries of Newfoundland), sends the largest contingent. Of the remainder, the counties of North Wales have all of them sent large numbers to the town, which may now be regarded as their natural capital-about a twelfth of the inhabitants of Liverpool having been born in Wales. One twentieth of its population claim Scotland as the place of their nativity, especially the coasts of the Solway and the Clyde. The Welsh and Scotch elements in Liverpool must be greater than these proportions indicate, as these migrations have been long in progress. A contingent considerable in numbers has been received from the Isle of Man, and from the Norman islands of Guernsey and Jersey, with their seafaring population. Yet far away the largest accession of numbers has been from the sister island ;-for every two Englishmen to be found in Liverpool there is one Irishman. From every county and from every port, almost from every village and every townland in the island, there is some representative; from the north with its industrious population, from the banks of the great central river Shannon, from "the " pleasant waters of the river Lee," from the mountain ranges in the west, and from the beautiful coasts of Kerry and of Cork, have come large numbers of a race unrivalled for eloquence and wit, for genius and poetic fire. How they will combine with the hard-working and self-reliant Danish-Saxon race of Lancashire, is a problem for the future. There is one peculiarity about this county, the migrations of those born within her bounds have been less than those of the natives of any other county in England ;-her smoky towns have been remarkably attractive to her sons. Out of every nine natives of the county only one was found resident elsewhere.

These are the two districts which have received the greatest influx from other parts. Next to them, the south-eastern and south midland districts appear to contain very mingled

populations, yet they do not contain any large towns, nor is the number of their inhabitants by any means large when compared with their extent. Perhaps this may be owing to the influence of the metropolis, as every court and every capital is said to ruin and gradually destroy the noble families, who make it their place of resort. There are far more families of ancient habitation and name in Devonshire, Cheshire and Cumberland, than in Kent, Surrey or Berkshire, though the latter have always been studded with the mansions of the great. In the same way the constant flow of population towards London may have had a similar influence on the great mass of the labouring classes. The border counties which contain a large mining population, have received large streams both from Ireland and Scotland, and are therefore peopled by a somewhat mingled race. The west midland counties, the Welsh marches, consisting of the valley of the Severn and Staffordshire, have a very numerous population chiefly dependent on mining and mineral manufactures, yet less mingled in its elements than the previous divisions. Again, the north midland counties, that part of Mercia which is watered by the Trent, has not received any large influx from other parts of the kingdom, though there seems to be a considerable interchange among the five counties themselves. The Eastern counties, East Anglia and Essex, also the South Western counties, parts of Wessex and Cornwall, give evidence of being inhabited by a very unmingled race. In Wales, a region of mountain fastnesses, with many barren tracts, where another language is spoken by a great part of the labouring people, there are, as we might expect, few immigrants, and those almost confined to the mining districts and towns on the south eastern border.

The counties of England taken separately, which have received few immigrants, are as follows, viz.: Kent, (native population) 76 per cent. of the whole; Sussex, 74; Essex,

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78; Suffolk, 83; Norfolk, 87; Wilts, 83; Dorset, 81; Somerset, 74.5; Devon, 82; Cornwall, 90.8; Hereford, 75; Lincoln, 79; Yorkshire, 84 (East Riding, 80 per cent., West Riding, 83.8, North Riding, 90); Cumberland, 77; Isle of Man, 80; Wales, taken as a whole, 87.8 per cent.\* With two exceptions, all these counties are situated on the coast; we may therefore conclude that physical characteristics and isolation of position are among the great means of preserving race. Most of these counties have not only received but few immigrants from other parts, but they have sent forth numerous swarms of their own sons. The increase of their population has been generally much below the average of the rest of England.

But there is one great exception to this rule. The county, or as it might be more fitly named the province of York, has advanced rapidly in wealth and power and population, at the same time that it gives the strongest evidence that it contains one of the least mingled populations in Britain. The North-Humberland of ancient England was the chief settlement of the Danish race. Hither, scudding over the German foam, the rovers of the northern seas paid many an unwelcome visit. Where the coast trends off to the north and the eastward, and forms a rocky bulwark against the ever-advancing waves, the sea-robbers found a resting place, or else they steered their pirate barks to the broad bosom of the Humber, where they might gorge themselves with the spoil of many a peaceful hamlet. Very dark is the wreck chart along this coast; many a gallant ship lies below the billows around its rocky promontories. The natives of this region have given ample proof of their Scandinavian origin. Sons of the

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<sup>•</sup> Proportion of adult natives still resident there, in Hereford, 52 per cent; Wilts, 60.4; Essex, 61; Suffolk, 66.8; Somerset, 67.1; Dorset, 67.8; Kent, 69; Sussex, 70; Cumberland, 72; Lincoln, 74; Norfolk, 74.5; Devon, 74.5; Cornwall, 80.2; Yorkshire, 84.

Vikings, they have not been content with the ordinary routine of commerce; the risks and dangers of the seas have been too tame for them. Northward, still northward they were wont to sond their ships to wage a deadly game within the very Arctic Zone. No sooner had the gladsome sound of the cuckoo been heard on their coasts, and the land assumed the festive garb of spring, than fleets of bold whalers were steering to the land of ice and snow, to seek their prey amid the storms and floating bergs of the Polar seas. It was a rough game. They won their spoil entering the very jaws of death itself. Each year the fleet came back smaller than the one which sailed. During the flourishing period of the whale fishery, three quarters of the English ships were furnished by Yorkshire. The little port of Whitby, nestling below St. Hilda's cliffs, rivalled the metropolis in the size of her fleet. Why did not our southern towns join in this dangerous sport? Why did they hang aloof from the daring contest? Is not the deep sea free to all? Are there any game laws in the Are the fishings of Greenland strictly pre-Arctic circle? Do lords of the manor, with their water-bailiffs, served ? rangers and keepers, assert their rights amid the grim solitudes of Jan Mayen and Spitsbergen ? The answer is a simple one : the old Norsemen had few settlements to the south of the Trent. Such may be the original ra e of inhabitants ; but how is their unity to be explained? Several causes seem to have combined to produce this result. The increase of her population, though great, has just kept pree with the increasing development of the resources of her soil. The number of Yorkshire-men in England is almost identical with the number of men in Yorkshire. Within her ample borders she exhibits an epitome of England with all its varied agricultural, manufacturing and mining industry. But chiefly I attribute it to the fact that commerce and population have till recently followed the course of the navigable river. Shut in, along a

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great extent of her boundaries, by hills and moorlands of considerable height, a number of navigable streams, the Aire, the Calder, the Don, the Wharfe, the Ouse, the Derwent, all take their rise within her borders, and empty themselves in the estuary of the Humber. Two of the chief additions to her population are at the south-western limit, where, as the Sheaf flows from the Peak to Sheffield, so the natives of Derbyshire find their way to that town, and at the south-eastern limit, where, in the same manner, the Trent brings the natives of Lincoln to Hull. On the northern verge of the county, the mining industry of Durham has developed so rapidly, that the flow of population has been strongly across the Tees to that ancient bishopric.

Taking the county as a whole,\* 84 per cent. of the inhabitants were also born there. The neighbouring counties (especially Lancashire 2.35 per cent.) contributed 8 per cent., and the rest of England half that number. The proportion of Scotch, 6 per cent.; and of Irish, 8.13 per cent., is less than the average for the whole of England. The Yorkshiremen who have migrated to other parts are chiefly to be found in Lancashire, London and Durham. One in sixteen of the natives of the county has gone to the first, about a third of that number to the second, and a somewhat larger number to the last.

The part of England, indeed I may say of the mainland of Great Britain, which exhibits the least mingled population, is Cornwall. Yet it may claim a longer intercourse with the rest of the civilized world than any other part of the British Isles. If we would see the first civilized men who visited Britain, we must look back two thousand years and more. Phœnician galleys are lying at anchor under the shelter of St. Michael's Mount, and Tyrian merchants have landed on the beach, exhibiting some worthless trinkets of Carthaginian

<sup>•</sup> Table IX., p. 28.

workmanship, whilst the rudo Cornish men of that day have left their fastnesses in the woods, bringing down their treasures in exchange,-rude metal ornaments, nuggets of stream tin-, or small ingots of their own smelting,-presenting us with a picture exceedingly like that of the first dealings of Columbus with the nativos of the Bahamas or Hispaniola. More than nine out of ton of the inhabitants of this very Celtic county are also natives of its soil, and the greater part of the remainder were born not far from the banks of the Tamar. To the rest of England its debt is most trifling; nor is this wonderful, when we consider the position of Cornwall, and the very peculiar nature of the industry of her inhabitants on land, on the deep sea, and in the bowels of the earth. Cornwall sits solitary; she is placed as England's watch-tower, keeping guard over the western main. We have seen how the stream to London diminished at her border. Her sons have migrated, but not to the capital; they have gone Westward, Ho! to the silver mines of the Cordilleras, and the gold diggings of California and Ballaarat.

If the population of our counties has been so much indebted to migrations from other parts, that of our towns has been still more indebted to the same cause. The proportion of the population of the metropolis who were born there was 46 per cent.; very few of the manufacturing, very few of the county towns come up to this standard. No doubt it is owing to the great size and population of London. The average for sixty-one of the other principal towns is 35.6 per cent., and for the nine chief towns of Scotland less than 33 per cent.

The towns in which the proportion of native-born inabitants is large, over 40 per cent., are Tynemouth, South Shields, Yarmouth, Truro, Swanses, Shrewsbury, Colchester, Halifax, Macclesfield, Wolverhampton, Worcester, Birmingham, Dudley. Those in which half, or more than half, were native-born, are Norwich, Derby, Coventry, (60 per cent.) Sheffield, and Leeds,

(58 per cent.) The towns which are peopled almost exclusively by natives of the same county are Canterbury, 80 per cent., Maidstone, 75; Ipswich, 80; Norwich, 85; Yarmouth, 75; Exeter, 82; Truro, 85; Coventry, 81.7; Bolton, 79; Preston, 78; Bradford, 74; Halifax, 78; Huddersfield, 81; Leeds, 81; York, 81. The returns for some of the registration districts of Lancashire, (where the boroughs are not given separately) namely, of Wigan, 85 per cent.; Bury, 88; Oldham, 78; Rochdale, 83; Haslingden, 85; Burnley, 80; Blackburn, 89; Chorley, 90, show how very largely their population consists of those born in their own county. We have before had examples of very unmingled populations in agricultural counties, which offer very small inducements to immigrants from other parts. Here, in populous manufacturing towns, we find much more striking instances of the same result from the opposite reason, viz., that the inducement to remain at home is far greater than to remove elsewhere. No doubt the feeling of local attachment is much greater where everything is prosperous, and where the native race exists in constantly increasing force and numbers, than where everything is stagnant and lifeless. The case of Leeds is remarkable, because it has more than trebled since the beginning of the century; yet, nearly three out of five of its adult inhabitants are natives of the place, and less than a fifth have come from beyond the boundaries of Yorkshire, Ireland contributing a third of the remainder.

Three streams from Wales, from Scotland and from Ireland, have added large numbers to the population of England. Nearly a fifth (18 per cent.) of the natives of Wales are to be found in England. Lancashire, Cheshire, Monmouth, Shropshire and London, are the principal districts to which they have migrated. Of the adult inhabitants of England, 1.1 per cent. are natives of Wales. The frequency of Welsh surnames sufficiently proves that the Welsh clement in

England is far greater than this. The number of immigrants from Scotland is just about equal to that from Wales. They seem to have followed the coast line, and as the number of sea-ports on the east coast of Scotland is greater than on the west, so half the Scotchmen in England are to be found in Northumberland, Durham, York, Kent and London; whilst a migration, chiefly from the Solway and the Clyde, to Cumberland, Lancashire and Cheshire, comprises the greater part of what remains. In the rest of England the number is but small. Carlisle is the most Scotch town in South Britain, an eighth of its inhabitants having been born to the north of the Solway. The proportion is also great in all the Northumbrian sea-ports. The migration to the south of the Tweed is one of ancient origin; the figures also show that it consists more of Scotchmen than Scotchwomen, therefore Scotch surnames are everywhere abundant. The migrations of the Irish have been on a far larger scale than that of any other race in the kingdom; first they have poured into Liverpool, whence they have spread to all parts of Lancashire, and so to all the northern counties. The proportion, however, is much greater in the commercial than the manufacturing towns. The largest number of Irish to be found in one place is in the metropolis. The average proportion for the whole of England is that every twenty-fifth adult is Irish.

In 1851, Scotland exhibited a more mingled population than the southern division of the island.<sup>•</sup> The population who were native-born was only 88 per cent., whilst it was 94 per cent. in England and Wales. This has been caused by the large immigration of Irish. They form more than twice as large a proportion of the population of Scotland as they do of that of England. The number of Irish in Scotland much exceeds the number of Scotland. The English migration to Scotland is not a large one,—not a third of the

• Table 11., p. 25.

size of the counter current; but, as the population is much smaller, the proportion of English in Scotland is nearly twice as great as that of Scotch in England. Edinburgh and Leith contain the largest number of English. The counties which contain the least mingled populations are Dumfries, 77 per cent. of the inhabitants being born there; Aberdeen, 77; Perth, 79; Inverness, 80; Sutherland, 80; Argyll, 83; Caithness, 86; Ross, 88; and the Orkney and Shetland Islands, 96. Most of these counties exhibit a decreasing population; the clans have moved off from the Highlands; the tartan kilt and the plumed bonnet have become relics of the past, almost as much as the tabard of the herald, or the coat of the "beef-"eater;" no martial throng will ever gather when the pibroch pours forth the wild slogan of the hills. Most probably the clansman finds himself a happier man away amongst the clearings of Western Canada, than when he was dependent on the uncertain produce of a small mountain croft. The great movement in Scotland has been towards Glasgow and the Clyde; as 46 per cent. of the increase of population, during the present century, is to be found in the four counties of Lanark, Dumbarton, Renfrew and Ayr. The commercial and manufacturing towns all present a very mingled population, chiefly from the influx of Irish. Scotland affords one anomaly, it is much more thinly peopled than England, yet its population increases at a much slower rate. By far the most unmingled population in the British Isles is to be found in the Orkneys and Shetlands, that archipelago of islands, scattered over the stormy seas, in the same latitude as Greenland, where the summer's sun hardly leaves the horizon, and where the winter's night hardly gives place to the dim light of day. The Norsemen settled in these islands, and here we still find traces of the udallers of Scandinavia. The tenure or holding of land is an interesting subject. In our own islands we find many different forms and usages: in the Norman islands of

the Channel we have the peasant proprietor; in the Lake district, the yeoman or statesman; in Wilts, Norfolk and Northumberland we have immense tenant farms; in the West Riding and Lancashire we have the smallest farms in England; in some parts of the Highlands we have still the cottier plots; in other parts, large sheep farms and immense estates, and in these Norse islands we again find some of the small freeholds.

The Orkney and Shetland Islanders have had their own peculiar migrations. They have helped to man our whalers; they have always formed part of the crews of our arctic ships, and they have sent some numbers of their race to enter the service of the Hudson's Bay Company.

If the effects of race in England are gradually waning away, other influences are taking their place; the various kinds of employment are becoming divided and separated in a way they never were before. The farm labourers of our plains, the shepherds of our mountain tracts, the factory hands of our manufacturing towns, the sturdy mariners who plough the briny sea, the miners who labour in the bowels of the earth, the stalwart smiths, the wandering navvies are forming communities as distinct as any which previously have been seen in Britain. The migration of individuals from one district to another does not produce much change on those communities.

Such were some of the features of this subject in the year 1851; a metropolis dependent on all other parts of the kingdom for its population; a race little mingled in many of the country districts, and also in the manufacturing towns; a great stream from Ireland, passing first over Lancashire, and then over the rest of England, the commercial towns having a more mingled population than any other part. Ten years have elapsed, and, as far as the figures have yet been announced, the course of ovents remains the same. One or two

of these forces are now operating with redoubled strength; the rural districts are decreasing; the large towns, especially the metropolis and the larger commercial and manufacturing towns, are increasing. In the first half of the century, there was one instance of an English county, Wiltshire, retrograding in population; the census of 1861 has discovered five. Not only so, whilst the large towns are increasing the small ones are diminishing; nor is this confined to the very small towns, fifteen boroughs in England and four in Scotland, having each from 10,000 to 50,000 inhabitants, have gone backwards. Our country seems to have reached what may be termed the age of great cities. If we look at ancient or mediæval history, we shall find that this has almost invariably been the period of every nation's decline. When the resources of a country have been concentrated on a few particular spots, then has been that period of over-taxed vigour, that time of greatness and splendour which has been succeeded by a rapid decay. The conditions of the problem are now so completely changed, so many new influences, some conflicting, some compensating, have come into play, that it might seem idle to indulge in any prophesy. Still, I fain would look on the prospect as a hopeful one, and trust that our dearly-prized freedom, our government, inheriting so much that is valuable from the past, with the practical reforms of modern times; the improved position of our labouring classes, the new fields of industry for them in our colonies, as well as at home; the increase of our trade and commerce, with our marvellous inventions in art and manufactures; the spread of knowledge, of education, of sanitary information; the increased spirit of philanthropy, of sympathy with our fellowmen, both in our own and in foreign lands; the preaching of God's message of love and mercy to a fallen world, will preserve us from decay. and lead us on to a still greater, more useful and glorious future.



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## 1.—Indudiants of England and Wales, 1851. Adults .... 9.816,595

Born in England	8,762,667	or 8841	per cent.	
Wales		5.9	•	
			01.	
Scotland	101,989	1.15		
Ireland	350,558	3.9		
			5.05	
Channel Islands	10,122			
British subjects born abroad	7,551			
Colonial born				
	36,910	.34		
Born in Foreign States	39,917	•1		
			.78	
				00.83
11. — Inhabitan	te of Scotla	nd, 155	1.	
Adults	1,760,09			
Born in Scotland			» r cent.	
Fucland				
Include	-116.931	94		
			- 99 <b>T</b>	

 $\label{eq:main_state} III. {\leftarrow} Megendence of (Propulation ) is the Thermodynet Divisions of (England & Wales,$ 

	E dat nomfør – 7 Ad. d Istabitaste	f f A f it Intok tanta who had migrated there from sitter part	
I. Metropolis (Kent, Surrey and Mobiles x)	1,394,963	749,853	54 percent.
11. South Eastern (Kent, Surr., Suss., Berks, Hants)	647,134	201,077	21-3
III. South Midland (Mollesey, Herts, Pulks, Oxford,			
Northempton, Cambridge, Hunds, Redfords	660,775	116,619	2:
IV. Eastern Essex, Norfelk, Suffak	603,720	23,457	9-
V. South Western, Wills, Dor, D.V. Science, Conwe	975.024	· · · · · · · · · · · · · · · · · · ·	9.
VI. West Mailand, Globalester, Hereford, Shrop bire,			
Stafford, Woreostra, Wlawick	1,100.357	221,394	10-
VII. North Madland (Leis), Une., Derby, N. its, Butley	654,679	99,7-5	15
VIII. North Western (L. neastare, Chestary)	1,351 530	426 407	31-5
IX. Yorkshire	961,945	153,246	16-
X. Border Counties (Northum, Cum, Dur, Westm.)	521,460	115 754	23-
XI. Wales and Monmonthin	011,650	93,544	15-
Total	9 816,5 6	2,351.417	Arriage.

Freiand, 386,588; Scotland, 104,980; Channel Islands, Isle of Man, 10,122; Colonies, 10,208; Foreign Perts, 17,527; at Sea, 2,101; Total, 570,726. Natives of England and Wales who have wirrated from one great division to an obser, 1,780,946, 12 per cent.



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### IV.—Adult Population of the Metropolis, 1851, 1,304,963.

Of these also born therein	645,110 = 4	16-2 🍄 cent.
Hampshire, 29,302 ; Berkshire, 20,465	157,144 = 1	11-25
III. South MidHerts, 20,414; Midx, 22,504; Bucks, 14,922; Oxon, 13,774; Northants, Beds, Camb., Hunts, 27,714	<b>00.328</b> <del></del>	7.3
IV. Eastern-Essex, 47,670; Suffolk, 28,003; Norfolk, 27,888		
V. South WesternWiltshire, 18,308; Dorset, 8,806; Devon,		0.0
\$1,840; Cornwall, 8,495; Somerset, 27,691 VI. West Midland.—Gloucester, 18,958; Warwick, 12,820;	95,980 ==	0.9
Hereford, Worcester, Stafford, Shropshire, 26,412	58,190 =	
VII. North Mid.—Leic, Rutland, Derby, Notts, Lincoln VIII. North Western.—Lancashire, 11,185; Cheshire, 2,850	23,706 = 14,035 =	
IX. Yorkshire	20,847 =	
X. Four Border Counties	14,353 =	
XI. Wales and Monmouth Scotland	15,420 = 26,847 =	
Ireland	88,542 ==	6.82
British Colonies and British Subjects born abroad	9,376 = 21.866 =	
Toreifie publices	~1,000	~ ~~

The number of Adults born in London amounted, in 1851, to 792,483; therefore 18.6 per cent. must have migrated to other parts of England, 81.4 remained there.

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Natives of           *Surrey112,305           *Kent        285,851           II         Sussex        100,064           Hampshire225,393         Berks        108,824           *Middlesex.         62,574           Hertford102,00         Bucks        104,257           III.         Oxford        104,257           Hunts        38,211	$\begin{array}{c} 20,846 = 28^{\circ} \\ 54,942 = 19 \cdot 2 \\ 23,089 = 12 \cdot 1 \\ 20,302 = 13^{\circ} \\ 20,465 = 18 \cdot 9 \\ 22,504 = 36^{\circ} \\ 20.414 = 20^{\circ} \\ 14,922 = 14 \cdot 3 \\ 13,774 = 12 \cdot 6 \end{array}$	Natives of Gloucester253,459 Hereford 81,738 Shropshire163,038 Stafford290,636 Worcester152,390 Warwick220,491 Leicester136,479 Rutland15,649 Lincoln228,594 Nottingham151,005 Derby178,448	In Lond. •/~ 18,058 = 7.6 5,805 = 7. 6,787 = 4. 7,186 = 24 6,024 = 43 19,820 = 5.8 4,072 = 3.6 905 = 5.8 9,040 = 8.9 4,811 = 3. 4,068 = 9.3
Bedford	$\begin{array}{ccccc} 0.538 &= 9\cdot 5 \\ 0.073 &= 0\cdot 2 \\ 47,670 &= 20 \\ 28,003 &= 12\cdot 6 \\ 27,888 &= 0\cdot 9 \\ 18,308 &= 10\cdot 4 \\ 8,806 &= 7\cdot 7 \\ 31,840 &= 0.1 \\ 8,495 &= 4\cdot 1 \end{array}$	VIII. {Cheshire210,706 Lancashire962,378 IX. Yorkshire962,373 Durham157,219 Northumb100,697 X. Cumbeland 114 490	2,650 = 1·3 11,165 = 1·4 20,847 = 2·2 4,945 = 3·1 5,760 = 3·6 2,552 = 2·2 1,076 = 2·7

V.-Proportion of Natives of each County (Adults) resident in London.

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• Extra Metropolitan.

VI-Adult Population of Liverpool, 1851, 213,767.

Of whom were also born therein	48,298	or 99-6 #	oent.
In other parts of Lancashire	21.459	10-	
Cheshire		4.0	
Yorkshire		97	
X. Cumberland, 5,855; Westmoreland, 1,419		8-4	
VI. West Midland Counties. Shropshire 3,350		• -	
Stafford 1.887			
The 4 other Counties 9,910			
The sound connect state	8.152	3-8	
W The Are S Western Comption consciolly Depen		1.76	
V. The five S. Western Counties, especially Devon.			
VII. The five N. Midland Counties, especially Derby.		1.4	
Northumberland and Durham.		•5	
II. South Eastern 1,80			
III. South Midland 1,170			
IV. Eastern Counties 1,055			
	- 4,120	1-9	
London		2.	
England			54.56
Wales and Monmouth	17,912	8-	
Scotland	10,996	5-	
Ireland	61,040	28.0	
Isle of Man and Channel Islands	8.344	1.2	
British subjects born abruad or in Colonies	1.114	•5	
Foreign subjects			
			45-
		-	90-56

VII-Manchester and Salford Adult Population, 1851, 225,727.

•	-	
Of whom were also born therein	69,733	nearly 28 # cent.
In other parts of Lancashire		
Cheshire		
IX. Yorkshire		
X. Cumberland 1,920		U U
Westmoreland		
	- 8,109	
X. Northumberland and Durham		• • • • • •
VII. North Midland Counties. Nottingham 1,590	)	
Derby 6,750	3	
The 3 other Counties 1.660		
	9,000	4.
VI. West Midland Counties (Stafford, Shropshire		
Warwick, Worcester, Hereford, Gloucester).		9.6
		· •
London		1.5
South Eastern, South Midland, Eastern, and		
South Midland Counties		÷1
England	•	70-4
Wales	6,923	2-6
Scoland	5,900	2.35
Ireland		
Foreigners, Colonial born, &c.		
a merilineral concernation of the second	,	23-3
		59.9

90-	7



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VIII.—Lancashire Adult Populat	ion, 185	1	1,129,8	17
Born in Lancashire	r 03·2 p	er cent.		
IX. Yorkshire 60,970	5.13			
VIII. Cheshire	4 55			
X. Cumberland	1.87			
VII. Derbyshire 13.326	1.20			
VI. Shropshire 8,002 ] 16,550 Statford 8,458 ] 16,550	1.47			
•		77.72		
I. London 10,815	•97			
II. IV. V. III. Rest of England VI. VII. X. parts of	3· <b>19</b>			
. ,		4-10		
			82.18	
Wales 27,410	2.41			
Scotland 21,874	1.92			
Ireland 138,637	12.35			
British Colonies 1,851 Foreign Countries, &c 5,910	•69			
Isle of Man, Guernsey, &c. 4,500	•1			
••••••			17.88	

## ---- 100-01.

The natives of Lancashire amount to 798,480, of whom a very high pre tion, 88.8 per cent., resided in the county of their birth in 1851.

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### IX.-Yorkshire Adult Population, 1851, 961,045.

Born in Yorkshire	808,690	or	84 per cent.
Lancashire	22,641		2.35
Lincolnshire	10.202		2.
Derbyshire	12,051		1.25
Nottingham	9,786		1.
Border Counties	18,008		1·3 <b>6</b>
			91 96
London	7,288		•75
Rest of England, II, III,)			
IV, V, VI, Leicester, Rutland, Cheshire	30,070		3.13
Scotland	6.243		•6
Ireland	30,098		3.18
Foreign & Colonial born .	8,114		-3
	-,		00.87

The Population of Yorkshire in 1851 was almost identical with the nur of Yorkshiremen in all England and Wales (962,373). Of those who migrated to other parts, 20,847 (2:17 per cent) were in London, 60,970, or per cent, in Lancashire, and 26,323, or 2:7 per cent, in Durham.

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## BIOGRAPHICAL NOTICES OF SOME LIVERPOOL MATHEMATICIANS.

By T. T. Wilkinson, F.R.A.S., dc.

READ TOTH JANUARY, 1502.

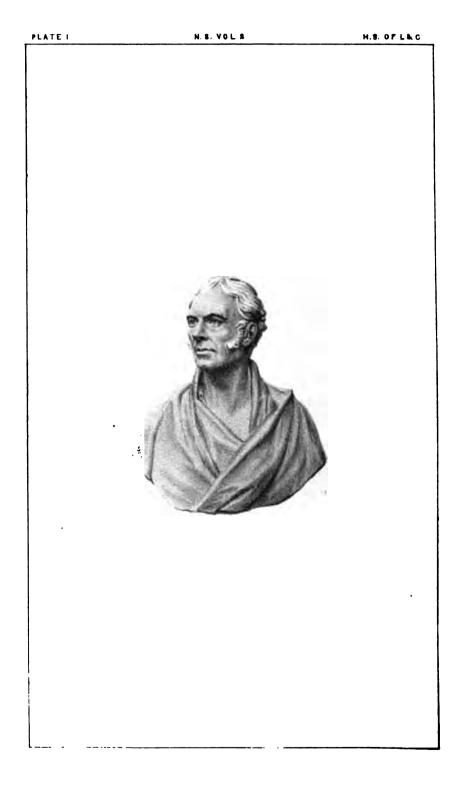
TOWARDS the close of the last, and for a considerable period of the present century, Lancashire and the North were peculiarly distinguished for the number of mathematicians who contributed to the periodicals of the day. Most of these were located in groups, each having some distinctive feature by which it could be distinguished from the rest. One group, for instance, was noted for the attention its members paid to pure geometry; another excelled in analytical investigations; and a third in some other branch of pure or mixed mathematics. A careful observer, however, will find that both the **prigin and the peculiar tastes of each group can generally be** traced to some solitary student who studied science for its own sake, and who gradually infused his spirit into a number of equally ardent, but perhaps younger men. Some of these have, perhaps, gradually outstripped their teachers, have migrated into other districts, and have in turn raised up other small bands of inquirers possessed of kindred tastes, and equally anxious to avail themselves of our periodicals as a means of communicating the results of their investigations to their distant friends.

From this point of view our little annual, quarterly and monthly magazines possess a value which many scientific archeologists overlook, since in their "day and generation" they have done much good service in forming the mathematical and scientific tastes of the people. The influence of one master mind in swaying a number of others is very plainly seen when examining in detail the merits of those who have composed the several groups. If we take Leeds, for example, and examine the peculiar tastes of the contributors to its valuable *Correspondent*, we shall find the geometrical propensities of John Ryley, its first editor, transmitted throughout the whole work, whilst the Diophantine partialities of his able namesakes are equally striking. The same may be said of the *Gentleman's Diary*, under Wildbore; of the *Mathematical Repository*, under Leybourn; and of the *Companion*, under Davis and Hampshire. Mr. Dawson, of Sedbergh, an able contemporary of some of these, was, on the contrary, too *analytically minded* for such groups as that at Leeds; and hence found it more congenial to form Senior Wranglers for Cambridge, than to diffuse the Euclidean forms of geometry among the rustics of the North.

The group at Carlisle, and also that which flourished so long around Newcastle-upon-Tyne, were indebted for their origin and respectability to Dean Milner and John Howard, at the same time one of his ablest and most eccentric pupils. The Spherical Geometry and occasional papers of the latter, in the periodicals of his time, are proofs sufficient of his correct taste and general ability; but the fame of John Gough, the blind mathematician of Kendal, is perhaps more widely spread; for in addition to contributing largely to many of our serials, he had the high honour to instruct many of our ablest Cambridge mathematicians. Dr. Whewell, Dr. Dawes, Dr. King, Dr. Wilson, Mr. Gaskin and several others supply ample proofs of the efficiency of Mr. Gough's early training; and the name of Dr. Dalton needs only to be added to the list, is order fully to establish his claims.

The mathematicians who composed the Liverpool group were mostly derived from other localities. They had consequently varied tastes, amongst which pure geometry was most predominant. This great emporium of trade at that time





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attracted even men of science. The acquisition of wealth, however, did not wholly engross their attention; and hence, about fifty years ago, Liverpool could boast some of the ablest contributors to our literary and scientific periodicals. I need only mention the names of Roscoe, Swale, Marrat, Campbell, Hilton, Smith, Eyres, Ducket, Jones, Nicholson and Wright, to prove this assertion; the rest may be gathered from the pages of the *Diaries*, the *Companion*, the *Enquirer*, the *Student*, and the *Apollonius*. On two former occasions I laid before you an account of the valuable and extensive writings of Swale, most of which are now lost for ever; and in this I propose briefly to notice the merits of several others belonging to this interesting group.

The late COLIN CAMPBELL was born October 12th, 1774. In early youth he was a pupil of Mr. John Howard, whose name has been previously mentioned, and who encouraged him to make his first appearance as a contributor to the mathematical department of Whiting's Scientific Receptacle, in 1791. While at this school he was taught algebra, as far as guadratic equations; and soon after he commenced a course of self-instruction in the Elements of Euclid and the Data. Both of these works were studied with much assiduity, and he soon began to make good use of their principles, by solving difficult geometrical questions which occasionally appeared in the periodicals. On removing to Kendal, he placed himself under the direction of Dalton; but, owing to the pressing nature of his business in the bank where he was an apprentice, he was only able to read a small portion of the Diophantine Analysis with this great philosopher. He next formed the acquaintance of Mr. Gough, who kindly helped him over any difficulties he found in reading Simpson's Fluxions. In 1793 Mr. Gough was requested to recommend a fit and proper person to teach mathematics in a college about to be established in Manchester. He first consulted Mr. Campbell respecting

the application, and finally selected Mr. Dalton, who obtained the appointment. In March, 1799, Mr. Campbell removed from Kendal to Liverpool, where he was first a clerk, then an American merchant, and lastly a cotton-broker, until 1839, when he retired from business, and was made a magistrate for the county.

Before removing from Kendal, Mr. Campbell was well known as an able mathematician. He was a constant contributor to the Lady's Diary and its Companion; and this probably led to the following offer from Dr. Maskelyne, the then Astronomer Royal; which, however, circumstances led him to decline. It was probably fortunate that he did so, for science rarely leads to such affluence as Mr. Campbell subsequently attained.

#### "ROYAL OBSERVATORY, GREENWICH, " June 6th, 1798.

"Sir,

"Wanting an Assistant in the business at the Royal "Observatory, I applied to my friend Dr. Hutton, who recommended "you to me, as a person well skilled in the mathematics. I desire to "know whether you are inclined for such an employment; which is "making observations upon the heavenly bodies with the excellent "instruments here, and calculating the observations. If the person has "had no previous practice of this kind, I shall have to teach him, which "has been the case with all my assistants. In about a month's time, "and sometimes in less, they become capable, with proper attentiou, "of observing sufficiently well for their observations to be entered in "the books. It is requisite the person should have a common good eye, "and hear well, as we observe by the beat of a clock, after having cal-"culated the second by the eye. The moon is to be observed every "time she passes the meridian, whether by night or day, when the "weather will permit; and sometimes other night observations are to "be attended to. An alarum clock is madu se of to awake him in the " you to me, as a person well skilled in the mathematics. I desire to "Weather will permit, and sometimes other inght observations are to "be attended to. An alarum clock is madu se of to awake him in the "night for that purpose. Be pleased to mention your age and situation, "whether you keep a school, or are an assistant in one, and whether "the decomposed of this proposal chould be agreeable to you. I shall "single or married, if this proposal should be agreeable to you. I shall "not need a new assistant until the first of next month. It is a situation "from which those who have gone away have advanced themselves, in "consequence of having been here. I shall be obliged to you for a " speedy answer.

" I am, Sir, " Your obedient Servant,

" NEVIL MASKELYNE."

" Mr. Colin Campbell, " Kendal, Westmoreland."



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Soon after his arrival in Liverpool, he was introduced to most of the mathematicians then resident. They held weekly meetings, which tended to excite competition, and produced results which are well known to those who have examined the leading periodicals of the day. When resident at Kendal, he knew it would be in vain for him to contend with Gough, but now the case was somewhat altered. A powerful stimulus was in operation; and hence in the Gentleman's Diary, for 1800, they each solved one of two most difficult questions, neither being able to accomplish both. He continued his correspondence to this Diary for several years longer; and he also assisted materially in the mathematical department of the Liverpool Student.

Several of Mr. Campbell's contemporaries are not unworthy of a passing notice. One of his carliest acquaintances was MR. JOHN KNOWLES. He was then a schoolmaster and lecturer on Natural Philosophy; he was also well versed in the classics, and possessed a fair knowledge of chemistry and mathematics. The Student originated with him; but he died after publishing the first two numbers of the work. He contributed to the Gentleman's Diary under his real name; but in the Student he more frequently appears under the assumed names of Non Sibi and N. Selucon. The management of the Student was next entrusted to MR. WILLIAM HILTON, who had formerly been a pupil of the well-known Wolfenden, of Hollinwood. At that time both teacher and pupil were handloom weavers; but Mr. Hilton removed from Saddleworth to Liverpool, about the close of the last century. He was first an assistant in some school-then a clerk in a merchant's office-and finally a dealer in cotton, by which he realized soveral thousand pounds. After issuing two more numbers of the Student, that meritorious work was discontinued; and its editor was subsequently cut off suddenly by a stroke of paralysis, in the 55th year of his age. He was a good geo-

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meter, and his contributions to the *Mathematical Companion*, the *Gentleman's Diary*, &c., may be referred to in proof of the prevailing tendencies of the Oldham group of Lancashire mathematicians.

MR. RICHARD NICHOLSON was also an able geometer. He had paid considerable attention to other branches of mathematics, but pure geometry was his *forte*. His papers occupy considerable space in the *Diary*, the *Companion*, the *Student*, and several other periodicals. He was mostly engaged as private tutor in Liverpool and its vicinity; but his habits were not very regular, and he died in early life.

Mr. WILLIAM SMITH was also an able self-taught geometer, of the same period, and was most enthusiastic in his favourite pursuits. His papers in the *Companion*, the *Diaries*, and the *Student*, are almost always of extreme complexity—frequently tending rather to puzzle and astonish than to instruct his readers. His intellect at last gave way, and after lingering for a considerable period, he died in middle age.

THE REV. WILLIAM HARTSHORN, M.A., of Trinity College, Dublin, was also an able mathematician. He married early in life, had a numerous and burdensome family, and died, somewhat depressed in circumstances, at the early age of forty-seven. He was well versed in the classics, had studied Hebrew and French critically, and was, besides, intimately acquainted with the analytical writings of the continental geometers. He was naturally reserved, and hence his name does not appear as a contributor to the local or other journals of his time.

MR. GRIFFITH JONES was not only a good geometer, but also an excellent analyst. He formerly held an office in the Customs, but latterly he enjoyed a pension, and died in 1856, when nearly ninety years of age. His contributions to the *Diary* exhibit much ability, and prove that his faculties were not impaired by reason of age. His practice, for many years,

was to rise at four in the morning, and study until seven-the rest of the day being devoted to business or recreation.

MR. GEORGE DUCKET was another of Mr. Campbell's con temporaries, and is chiefly known as an able contributor to the *Diaries* and other periodicals. He was formerly an officer in the Excise; but in his later years he was superannuated, and enjoyed a liberal pension. I had the pleasure of visiting him, in company with Mr. Marrat, in 1850, and was much interested by his conversation and personal appearance.

MR. SANUEL JONES was well known amongst the Liverpool group of geometers. In early life he was intimate with Mr. John Wright, of Norley, one of the ablest geometers the county of Chester can boast, who soon initiated him into the practice of solving problems for the periodicals. Mr. Wright, however, died in 1810, and Mr. Jones having married, he removed to Liverpool, and opened an academy in Richmond Row. He conducted this establishment with credit for many years, and ultimately retired with a competency. He contributed largely to the *Diaries*, the *Repository*, the *Liverpool Apollonius*, and other serials ; his papers being generally distinguished for neatness and originality. He died in 1847, in the seventy-first year of his age.

MR. WILLIAM MARRAT was not only a contributor to scientific and mathematical periodicals, but he was also an author of considerable repute. He was peculiarly distinguished in Mechanics and Natural Philosophy; his works on the former subject evincing that he had read most of the writings of the continental mathematicians with attention. During his long and chequered career he contributed to the Diaries, the Receptacle, the Student, the Leeds Correspondent, the Repository, and several other scrials. He also edited, either wholly or in part, the Enquirer (3 vols.), published at Boston, in Lincolnshire; the Monthly Scientific Journal (7 parts), published at New York, in America; and a

History of the Antiquities of Lincolnshire, his native county. Besides these, he wrote a valuable Treatise on Mechanics, in Theory and Practice (1810), dedicated to Dr. Hutton; and The Elements of Mechanical Philosophy (1825), which he dedicated to his friend Dr. Traill, who was then resident in Liverpool. In his later years he suffered much from ill health, and died somewhat unexpectedly on the 26th March, 1853, being then in the seventy-ninth year of his age.

MR. JESSE WINWARD is the last of the group whose labours I have space to notice. His earlier contributions to the mathematical periodicals convey the intimation that he was then (1809) a "fifer in the Second Royal Lancashire Militia." He was peculiarly distinguished for his taste in pure geometry; which probably led to his appointment as master of the Free School at West Derby, near Liverpool. He held this situation with much credit for many years, and was then appointed surveyor of the roads in the same district. He died in 1861, aged seventy-eight.

Such were a few of the leading members of the Liverpool group. Their labours are thickly scattered over the pages of our scientific periodicals, and many of these may yet be studied with profit by aspiring students.

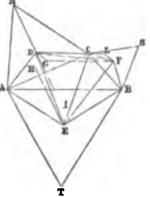
In 1848 Mr. Campbell collected the best of his papers, and published them under the title of *Mathematical Lucubrations*. The issue was only intended for private circulation amongst his friends, and was therefore limited to fifty copies. The work is divided into three parts—of which the first contains "demonstrations of sixty Geometrical Theorems," proposed for solution, towards the close of the last century, by the Rev. John Lawson; the second part contains proofs of "some "Geometrical Propositions" of his own, "but a greater num-"ber of other proposers;" and the third portion consists of questions and solutions relating to other branches of "abstract "and mixed Mathematics." These are all distinguished by

Mr. Campbell's peculiar neatness and elegance, and have been repeatedly spoken of in terms of approbation by some of our ablest mathematicians. His taste for geometrical studies continued unabated almost through life; and when a neat problem or theorem appeared, he never rested satisfied until he had made out a satisfactory solution. One of his latest essays of this kind led to our personal acquaintance. He was then engaged upon the proofs of the following theorem, lithographed copies of which he afterwards distributed amongst a few of his most intimate friends.

THEOREM.—" If on the sides of any triangle equilateral " triangles be described, and their centres joined, the " triangle so described shall be equilateral." The requisite diagrams may readily be sketched.

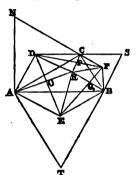
Demonstration by Mr. Camp-

bell.—ABC being any plane triangle, and having described on its sides the equilateral triangles ANC, CSB, ATB, and determined their centres, D, E, F, let these be joined to form the triangle DEF, which is said to be equilateral. Then draw DH, EI parallel to AN, and EH parallel to ND, drawn and pro-



duced to meet EI in I; draw also DG parallel to NO, and from F a line to meet it in G, parallel to DC, to which draw FL parallel to DG. Thus we shall have two parallelograms HDIE, GDLF, which, by reason of the equal and given angles HDI, GDL, are given, and the same in species; moreover, the triangles into which they are divided by the diagonals, but placed contrariwise to each other, are similar; wherefore the angles EDI, FDO,

opposite the shorter sides EI, FL are equal; consequently, the angle  $EDF=IDC=\frac{1}{2}$  ADC=ANC. By a like procedure the angles of the triangle EDF, at E and F, may be proved to be the same as at D; showing that this triangle is equilateral. Q. E. D.



Otherwise, by the same.—Let ABC be any plane triangle, and ACN, OSB, ATB, equilateral triangles described on its sides, then D, F, E being the centres of the equilateral triangles, draw AD, DC, CF, FB, BE, EA, as also DE and AO, perpendicular to it, and having produced AO to

R, making OR = AO join ER. Now, the sides AE, ER of the triangle AER thus formed are evidently equal, and because AE = EB, ER = EB, and therefore if BR be drawn, and EQ perpendicular to it, 1 the angle AEB  $= \frac{1}{2} AER + \frac{1}{2} REB = OEQ = ATB$ , In like manner, by drawing CR and DP perpendicular to it, we shall have the angle ODP = ANC. But the angle ATB = ANC $= OSB = \frac{1}{3}$  of two right angles, consequently the angle ARB = ARC =  $\frac{2}{3}$  of two, or  $\frac{1}{3}$  of four right angles; hence CRB is also =  $\frac{1}{3}$  of four right angles, and therefore the angle CRB + CSB = two right angles, and consequently RF = CF or BF, so that FP, FQ, drawn from F to P and Q, in which points OR and RB have been shown to be bisected, are manifestly perpendicular to these lines, and consequently DP, PF, are in the same right line, as are likewise FQ, QE, forming with DE three equal angles, DEF, EDF, DFE, and therefore an equilateral triangle DEF. Q. E. D.

, Third Solution, by Six FREDERICE POLLOCK, F.R.S, Lord

Chief Baron of the Exchequer.—Let ABC be the triangle; P, Q, R, the centres of the equilateral triangles opposite B, A, C, respectively. Then  $CP = \frac{b}{9}$  sec. PCA  $= \frac{b}{9}$  sec.  $30^{\circ} = \frac{b}{\sqrt{8}}$ . Similarly  $CQ = \frac{a}{\sqrt{8}}$ ; and the angle PCQ = C + 60°,  $\therefore PQ^{3} = CP^{2} + CQ^{2} - QCP$ , CQ cos. PCQ =  $= \frac{a^{\circ} + b^{\circ} + c^{\circ}}{b} + \frac{abc}{\sqrt{8}} \cdot \frac{sin. C}{c}$ .....(1.) Also  $QR^{2} = \frac{a^{\circ} + b^{\circ} + c^{\circ}}{b} + \frac{abc}{\sqrt{3}} \cdot \frac{sin. B}{b}$ .....(2.) And  $PR^{3} = \frac{a^{\circ} + b^{\circ} + c^{\circ}}{b} + \frac{abc}{\sqrt{3}} \cdot \frac{sin. A}{a}$ ......(8.) But  $\frac{sin. A}{a} = \frac{sin. B}{b} = \frac{sin. C}{c}$ ; and hence PQ = QR = PR, and the triangle PQR is equilateral. Q. E. D.

Mr. Campbell's health began to fail in the early part of 1851. During the summer he seemed to rally, and his relatives indulged the hope that he might be spared to them for a few years longer. Their anticipations, however, were not destined to be realized; for after a short period his malady returned, and he died October 21st, 1851, in the seventy-cighth year of his age. The following tribute to his memory appeared in one of the local papers shortly after his death, and will fitly close this imperfect sketch of the principal members of the Liverpool group.

"Our obituary to-day records the death of Mr. Colin "Campbell, a gentleman well known in the commercial circles "of Liverpool, and as greatly esteemed, perhaps, as any that "ever moved in them. His character, during the long course "of years he was engaged in business, extending over more "than half a century, was marked by the most high-minded "integrity, and the nicest possible sense of honour. The "unlimited confidence reposed in him was never betrayed; "nor was the respect entertained for him lessened by a single "action unworthy of the course he had uniformly pursued.

"But Mr. Campbell was known honourably as a lover of

"literature and science. From his youth he ardently prose-"cuted the study of mathematics; nor unprofitably, for he "has left behind him a volume of geometrical problems, en-"titled *Lucubrations in Mathematics*, printed, however, only "for private circulation, in an edition which his innate modesty "restricted to fifty copies. These have elicited the most "flattering testimonies from many of the most distinguished "mathematicians of the age. On his retirement from business, "some years ago, Mr. Campbell was appointed a magistrate of "the county, to the duties of which responsible office he "applied himself with, it is believed, equal credit to himself "and the body with which he was associated.

"Referring to his more private capacity ;—as a man, he "was gentle, amiable, unostentatiously benevolent and pro-"verbially truthful; as a member of the Established Church, "consistent, steady and firm; in his family, affectionate and "considerate to the last degree; and as a friend, one that "could be as thoroughly depended upon in seasons of adver-"sity as in those of more prosperous fortune. There are "very many who will long regret him in their several relation-"ships; and his loss, in some of them, will be deemed irre-"parable."\*

Mr. Campbell also left in MS. a select collection of solutions to a series of neat geometrical questions, several of which had been acknowledged by the editor, but had not been inserted at length in the *Gentleman's Diary*. A translation of the Appendix to Dr. Simson's *Conic Sections* also formed a portion of the manuscript. It was at one time intended to publish these as a second volume of the *Lucubrations*, but the project was ultimately abandoned.

• See Appendix A.

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# OBIGINAL CORRESPONDENCE OF THE LORD PRESIDENT BRADSHAW; WITH OTHER DOCUMENTS ILLUSTRATING HIS PERSONAL HISTORY.

(IN THE POSSESSION OF A. BOWSON LINGARD, ESQ.)

By A. Craig Gibson, F.S.A., Hon. Curator.

(READ 14TH NOVEMBER, 1861.)

THE valuable documents that I here offer to the notice of the Society have been, for some years, in the possession of the friend who has entrusted to me an office which he would probably have discharged himself, had not avocations of a different and more personally important character denied the leisure required for the task. They came to their present owner from a near relative, the widow of a gentleman who died at a ripe age in 1815, was guardian of those direct descendants of the Bradshaws of Marple who inherited the family property, and, for some time, resided in their family seat. These circumstances are mentioned as bearing upon the question of the authenticity of the MSS., which, however, will be found to be established beyond dispute by the documents themselves. Amongst them are several papers concerning the private and domestic affairs of the Regicide Lord President; with others referring to the high offices he held under the Commonwealth. Some relate to events that form portions of the history of the stirring times in which he lived, and respecting which he might have quoted the "Quorum "pars magna fui" of the Trojan. A few appertain to the management of estates bestowed upon him by parliament in

requital of his services to the state. Many bear his wellknown signature, neat, steady and distinct, as it stands foremost of the fifty-nine appended to the death warrant of Charles I.; while most of them are endorsed, and some written throughout, in the same unmistakable hand.

There are several biographies of the remarkable man-the most remarkable, perhaps, that the two counties palatine have produced—to whom these documents carry back our attention ; but all are more or less inaccurate and imperfect, and all more or less partial or unjust. Writers on the royalist side near to his own time, and of similar leanings nearer to ours, seem to have been at a loss to find words sufficiently bitter, epithets sufficiently forcible to express their abhorrence of this great man; while those holding opposite principles, and, prominent amongst them, John Milton, have loaded his name and memory with an all but unexampled weight of panegyric. Execrated by the one party as "hypocritical," "vain," "inso-"lent," "vulgar," "dull," "ferocious," "a viper of hell, "unawed by divine or human justice," "holding riches and "honour, power and consequence, more valuable than all the "rewards of righteousness in another world, and dreading "mediocrity with a good conscience more than eternal tor-"ments;"\* as "that monster John Bradshaw, whom we "scorn to honour so much as to rail at, as if it were manners "to rail at the devil" †- he is extolled by the other, and certainly with greater ability, as wise, charitable, pious, sincere, mild, humane, courteous, "possessing a sound heart "in things religious, a rare acute judgment in the state of "things civil, a wise conduct in the administration of state "affairs, an eloquent tongue to inform a friend or convince an "adversary, most equal heart and hand in distributing justice "to both, a care of conscience in resolving, and courage to

<sup>•</sup> The Rev. Mark Noble's Lives of the Regicides. + Meranius Publicus, July 19th to 19th, 1660.

"execute a resolution;" • " always constant to himself, "greater than envy, and well assured of immortality.'•

The most recent accounts of this great Parliamentarian judge are to be found in Lord Campbell's "Lives of the "Chief Justices," and in a very agreeable little volume of "Cheshire Biographies," by Mr. Worthington Barlow, of Gray's Inn. That contained in the latter is perhaps the fairest, if not the fullest, that has appeared.

The amount of space required for these important papers themselves, were there no other preventing cause, precludes my offering many comments of my own upon the personage with whose affairs they are connected. I shall therefore confine myself to making very briefly such remarks as the several documents, taken in chronological order, may suggest, endeavouring to point out where, how and to what extent they appear to elucidate any remarkable phase in his character, or to illustrate any important incident in his career, and giving in connection with them a summary of the principal events of his life, a task which a careful examination of all procurable authorities, and more especially of these MSS., qualifies me to execute with perhaps more precision and accuracy than have heretofore been attained.

The date and place of his birth, concerning which his biographers have not agreed, are fixed by the registration of his baptism, of which I am enabled to produce a copy.

1603. Bapt: December, 1602. John the sonne of Henrye Bradshaw of Marple was baptized the : 10th.

The above is a true copy of the Register book of Baptisms of the Parish Church of Stockport, extracted this twenty-seventh day of January, 1858.

(Signed) RICHARD DAWSON, M.A., Curate of Stockport.

• Mercurius Politicus, Oct. 37th to Nov. 3rd, and Publick Intelligencer, from . Sim to Nov. 9th, 1659.

Ormerod says, that "in 1606 Sir Edward Stanley of Thonge. "in consideration of £270, conveyed premises in Marple and "Wybersleigh, consisting of one messuage with its appurten-"ances and a tenement called the Plase, to Henry Bradshaw, "veoman, the elder, and his heirs, &c.-the said premises "being partly occupied by the said Henry and partly by Henry "Bradshaw, the younger." This Henry Bradshaw the younger was the Judge's father. Bradshaw, himself, informs us that he received a part of his education at the schools of Bunbury in Cheshire, and Middleton in Lancashire; and from other sources we learn, that after leaving school, he served a clerkship to an attorney in Congleton. On the expiry of this apprenticeship, aiming at the higher walks of his profession, he entered himself at Gray's Inn to qualify for the bar. A part of the Harleian Manuscript, amongst other matters relating to Gray's Inn, contains the lists of admissions, &c., to that Institution, and in these occur the names of several John Bradshaws. But the John Bradshaw elected in 1622, and called to the bar on the 23rd of April, 1627, is no doubt the future Lord President, whose age at those respective periods would be nineteen and twenty-four.

In 1630, at the age of 27, he was made Steward of the Manor of Glossop. The deed giving him this appointment, engrossed in Latin, signed by the Earl of Arundel and Surrey, the lord of the manor, and endorsed in Bradshaw's writing, "Patent for the Stewardship of Glossop," is amongst the parchments comprised in this collection. Its imperfect condition, it being mutilated apparently by vermin, prevents our making a satisfactory copy of this deed.

At that period of his life Bradshaw resided at Congleton, where he maintained an establishment for a considerable time even after he had settled in London. In 1637 he was Mayor of Congleton, and was High Steward and Counsel for the Borough for many years, as is shewn by the following entry

in the corporation records. "January 21, 1655-56, Thomas "Spencer, Mayor, Ordered, that John Bradshaw, Esq., of this "borough, be continued High Steward of, and Councillor to "this borough as formerly, and be paid the same salary quar-"terly as heretofore hath been paid, and that he be acquainted "therewith and his acceptance desired." It would appear that he did not resign his professional connection with Congleton until the date just quoted, that is, within four years of his death; for on the 18th of May following, the same books record a resolution, "that a tender be made to the Lord Savage of the "high stewardship of this borough, by the next post, Mr. "Attorney Bradshaw having given up his interest therein." We may infer that Bradshaw lived in considerable style at Congleton, for in a MS. book of daily expenditure kept by his brother, Col. Bradshaw, also preserved with these documents, we find entered as part of his expenses at Congleton, on January 19, 1640, a gratuity to "my brother John's fire "servants." His professional earnings must have made him a man of substance at a comparatively early age, and the first in point of date of these papers refers to loans to, and obligations incurred on account of his Cheshire connections. Indeed his wife, as will shortly appear, complains somewhat bitterly of the burthens her husband had to bear through his liberality to his kindred. The first letter I shall adduce is one from Peter Daniel, of Over Tabley, respecting a debt due to Bradshaw by the writer's son-in-law, Mr. Richard Green, of Stapeley, near Nantwich.

### Peter Daniel to John Bradshaw.

#### Worthie Sir

Beinge yeasterday at Stapeley w<sup>h</sup> my Daughter Greene she acquainted mee w<sup>h</sup> some debts y<sup>t</sup> were betwixt my some Greene and you and beinge aboute to depart came a live as it seemed from you to my some Greene w<sup>th</sup> in his absence she opened & read and acquainted mee w<sup>th</sup> y<sup>e</sup> contents. It seemeth by y<sup>e</sup> live that you have dealt favourable w<sup>h</sup> him w<sup>th</sup> he either slightsth or fourshowsth, for w<sup>th</sup> he is blame worthis.

my intention was to have conferred w<sup>a</sup> him and my daughter about  $y^c$  debt & other business, but missinge him I pressed my daughter to send him to tabley to resolve of a course of satisfaction)

But seeing it is brought to  $y^t$  issue as your l're expresseth. Let me mediate for a little time longer, for if you have (as I am assured of it) granted  $y^t$  time past to Mrs Sneade. Doe me  $y^s$ favour as bestow a little time upon mee & it shall not be longe. I crave but until  $y^s$  assize weeke, and though he & his waise faile yet I will not.

The truth is this, my sonne & I are to sell some Land to Dr. More; all things are agreed upon y<sup>e</sup> finishinge by fine & recovery you \* \* \* y<sup>e</sup> assise must p'fect, that beinge donne, I will see you payed w<sup>h</sup> y<sup>e</sup> Doctor's money.

this I hope will content you y<sup>o</sup> rather at my desire and y<sup>i</sup> all prosecution may be suspended till y<sup>i</sup> time. I shall take it as especiall courtesie, at all times readie to requite, in y<sup>o</sup> interim an expression of thankfulness.

Thus desiringe to receave your answere w' a flatt ut petitur my respects remembered to your self & my cosen your wife, I remayne

Tabley

6. 7ber 1689.

#### Your' to serve you, PETER DANIEL.

S<sup>\*</sup> I am to desire your advice in a business of importance at this assises but your corporation and mine cannot agree yet I will find out a way to meete w<sup>h</sup> you & instruct you if you condisend to pleasure me as to give meeting, at some place neers to you not hinderinge your occasions.

my daughter Greene will this day send unto you to y<sup>•</sup> like purpose be pleased to take notice of my request, and satisfie her y<sup>4</sup> you have condiscended, y<sup>t</sup> her mind be not further troubled.

Indorsed in Bradshaw's hand,

\* {a l're from my cozen Daniel on behalf of Dick Greene was

Addressed,

To his worthie friend John Bradshaw, Esq., at his house in Congleton these present,

Another, respecting the same transaction, is from Mrs. Cecily Greene to John Bradshaw.

Sir

This morning Mr Noden came w youg [sio] cowes heather and sequestred all the ground and the hay and intend to thorrow to



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take all the hay away for he tell mee that you and M' Greene are agreede and you have satisfaction from him for your mony and have let M' Green have 401 more from you : which I think very strang that Mr Greene would never write to mee so much from him selfe. I have sent this bearer to intrete you to satisfie of the treuth and all so to write to M' Noden to satisfie him, so not willing to troble you forther, w' my best respeacts remembered unto your selfe and wife, I rest from Staplay this

Your loving fr\*\*\*\* (name torn off.)

Indorsed in the handwriting of John Bradshaw,

" M" Cicily Greene's I're intimating Noden's sequestr'n upon p'tence of my satisfaction."

#### Addressed.

To the wors" John Bradshaw at his house in Congleton give this A dd

16 of March (year not given)

Another paper which, as it arises out of this business, we shall take before its chronological turn, is the rough draft of a claim to the lands of Stapeley, by which we discover that the arrangement proposed by Mr. Daniel in his letter was not carried out, but that one of a different and rather complicated character had been proposed and accepted. The last section of this document is entirely in Bradshaw's writing, and several corrections have been made by him in those which precede it, including interlineations which are distinguished by brackets. It is without date, but gives evidence of having been written in 1649, ten years after the date of Mr. Daniel's letter, and it also leads us to the inference that Mr. Greene's property had become subject to sequestration by the State.

#### Copy of case laying claim to Sequestrated land.

Richard Green being seiz'd of Lands in Congleton during life, the remainder to his son in Tayle makes a lease to me of those his Lands in Congleton bearing date the 7th day of April 1637 for and during the terms of seaven years to comence imediately after the death of the survivor of his mother & grandmother and under the yearly rent of thirty pounds.

The (survivor of the) mother and grandmother of the said

Richard being dead (in y° year 1641) the said Richard Green upon valuable consideracon (being an 1001 & upw<sup>4</sup> old Dett & 401 in hand paid), by his deed bearing date the five and twentieth day of Octob<sup>7</sup> 1641 (sold unto me &) makes me a Release of the said seaven years rent of thirty pounds for all the said lands in Congleton. And being (then) also seiz'd of Lands (& hereditam<sup>4</sup>) in Stapley in *ffee* doth for counter security (& for my quiet enjoym<sup>4</sup> of my bargayne of Conglton Lands) make mee a (barg<sup>n</sup> and sale of his House & all his inheritance and) Lands in Stapley bearing date the 25 of Octob<sup>7</sup> 1641 for the terme of one and twenty years thence next ensuing under the yearely rent of one pepper Corne upon condicon that if I peaceably and w<sup>4</sup>out interrupcon injoyed my bargayn of y<sup>6</sup> s<sup>4</sup> Lands in Congleton then from and after the end of the said seaven yeares expired the residue of y<sup>6</sup> s<sup>4</sup> terme of 21 yeares to bee voyd :

About 6 yeares ago In the yeare 1643 the s<sup>d</sup> Richard Green dyes and the said Lands in Congleton fall to y<sup>e</sup> son of the said Richard Green whereby I am interrupted from injoying the said 7 years release and the Lands for counter security in Stapley being sequestered I now demand of the Sequestrato<sup>n</sup> to injoy the rents and profits of the said Lands in Stapely untill I bee fully satisfied the remainder of the s<sup>d</sup> rents in Congleton.

The Priest (?) field  $p^t$  of  $y^e$  Congleton Lands hath been alwais desyred from me by reason of a form<sup>t</sup> barg<sup>n</sup> made to Tho: Spencer of Congleton and Rich: Greene in  $y^e$  beginning of  $y^e$  warre by fforce intruded into posseson of  $y^e$  House & got  $p^t$  of  $y^e$  Rents & dyed about six yeares since, so as by reason of  $y^e$  former *Title* of Spencer to part & Mr. Greene's interruption & his son's Title who claymes & hath all the rest of Congleton Lands—I have not injoyed clearely to  $y^e$  value of one yeares p'fit of all my barg<sup>n</sup> of 7<sup>n</sup> yeares of the Congleton lands. Whereby I am intitled to  $y^e$  lands in Stapely for my satisfaction, untill I have received recompence for  $y^e$  Losse 6 yeares p'fit w<sup>ch</sup> I should have rec<sup>d</sup> forth of the House & Lands in Congleton valued at ye leaste to 30*l* p ann (all w<sup>ch</sup> 7<sup>n</sup> yeares rent I p<sup>d</sup> before hand) w<sup>ch</sup> satisfaction once raised I shall give up the remainder of my Term to the State, Bnt in y<sup>e</sup> meane tyme I demand posson of y<sup>e</sup> sequestred house rents & gifts of y<sup>e</sup> lands in Stapely accord<sup>s</sup> to my right.

Indorsed,

writing of Bradshav

hand .

the

. •.

The Copy of my case touch<sup>s</sup> my Clayme to Stapley Lands (heretofore y<sup>e</sup> Inher<sup>ince</sup> of Mr. Rich: Greene sent to my secr. S<sup>1</sup> Roe to be shew<sup>d</sup> to y<sup>e</sup> Com<sup>te</sup> for Seq<sup>na</sup>.



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In 1640, aged then 37, Bradshaw was judge of the sheriff's court in the city of London, retaining, as mentioned, his house at Congleton. At this date he had been married for several years to Mary, daughter of — Marbury, of Marbury, an old Cheshire family. A letter from this lady to Mrs. Newton, her husband's sister, forms part of this collection, and shews that she maintained a watchful supervision over her husband's pecuniary affairs; though it is possible that, in this case, Bradshaw, unwilling himself to press so near a relative respecting a debt, delegated the office to his wife; and her letter affords proof that he could scarcely have found a more competent agent.

#### From Mrs. Bradshaw to Mrs. Newton.

Sister Newton I received a lire from you about the last day of November last, wherin you saide M' Bradshaw hath given you longer time for the paiment of the 1002 which you owe him, uppon condition that you should send the interest to mee within A fortnight after your messinger George Newton had bin here, which he promised should bee performed ; but some six or seven weekes after in stead of the money George Newton promised should bee sent mee you convayed me A i're without A messinger, not desiring anie Auswere to it, but requesting mee to forbeare the monie untill Christmas, and then you would send it, but when Christmas came no monie came ; tis just like all the rest of your doings, for ever since I came here I have seene nothing but deceit and jugling in you, you are the most lawles woman that ever 1 knew, for you neither regarde bond, promis, letter, mesage, or anie thing, if you can pay your depts with sleights and tricks tis well for you my husband cannot paye those ingagements he is in for you and other of his kin-dred after that manner, but payes redy money; if you and some others of you that have land could manage your Affaires no better, how can you expect that hee which hath no land should pays your depts, but indeed there is no shame in some of his kindred expectations from him, except people have A device to ruine him. I never see the like to some of you. I have sent this bearer for the interest, or to know from you, if you can and will tell truth, when I shall have it you would not vouchsafe my husband an answere to his letter nor bee scene by the messinger; but 1 bid this messinger staye for an answere, the interest as 1 take it the 4th of April next comes to sixteen pound; and for 1002 his promis to give you longe

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day, being only condittional and broken of your part I conceive he is not bound, therefore if you will not give newe and sofficient securitie for the payment of it uppon those days George Newton mentioned to my husband from you you must expect present suite, but if you will putt in good and sufficient securitie for the payment of it, I will send over to take the securitie, and you shall have in your olde bond when that is done, but you must first give me the names of two at the least sufficient sureties. all which beinge done you shall find me your loving sister, MARY BRADSHAW.

Congleton, 29th Januarie 1641.

Endorsed by Bradshaw, January, 1641,

Copy of a l're from my wife to my syster Newton about y 100£ w<sup>ch</sup> she owes me and y 16£ then due for Interest.

We then have three letters respecting obligations incurred for James Davenport, a family connection, son of the Lord Chief Baron, Sir Humphrey Davenport, of Bramhall.

#### James Davenport to John Bradshaw.

Good Cousin,

I received your letter by M<sup>r</sup> Watson from whom att severall tymes I have understoode with griefe the contents of this. I acknowledge your over faithfulness to my brother & your love to mee, which aggravates my sorrowe, and my shame, to see see good a friend, soe great a sufferer; but soe it is with mee att present that I cannot satisfye you in your ins' & reasonable demande, my owne necessities are soe pressing, which ere long will be soe visible uppon mee, that you will believe this is noe feigned storie & soe far yet credit mee, that it shall be through want of means, not of honesty or affection, if it appeare otherwise unto you, then

Sutton

September 2

1642.

Addressed, To my very loving Cousin John Bradshawe Esquire att Congleton these present Your loving Cousin, JAMES DAVENPORT.

Endorsed by Bradshaw, James Davenp<sup>te</sup> l're Seal, a chevron 7ber y<sup>e</sup> 2<sup>d</sup> 1642. bett<sup>w</sup> 3 cross crosslets.

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# **51**

#### Lady Davenport to John Bradshaw.

Good Cosen,

I received yo' l're of the seaventeenth of this month the last of the same, and give you thanke for yo' kynde remembrance to M' Davenport & my selfe he is (God be thanked) in reasonable health, but very weake both in body and mynde. God strengthen him. I am heartily sorry that you should suffer in any proporcon for yo' good will to my sonne James and I knowe it is his mynde to preserve you indempnifyed as far as any estate he bath will bear, noe penny proffitt out of any of his lande in Oxfordshire hath come to his bands for these 4 or five yeares last past, and I presume it is his desire that out of the proffitte of those lands the interest of yo' ingagem' should be payd, John Wood hath some direccon to receive those rents but I feare he can receive nothing, p'adventure yo' assistance may further him, I shall wryte to him as speedily as I canne have any knowledge where he is, If you have occasion to wryte to him I thinks there is one M' Winterburne that liveth in Syon college that may possiblic convey yor live to him, otherwise I protest unto you I knowe not att present how to direct you to him, and for my sonne James he is some tymes att Paris some tymes at Bloy-e, the last l're sent unto him was directed A monsiour, Monsieur Bradley demeurant au College de Turnay, A Paris. If you please to send to M' Booth uppon the old Exchange I thinks he canne give you more p'fect direccon, flor myne owne p'ticular, I shall be never be wanting to yo' assistance herein to the uttermost of my ability w<sup>th</sup> (God knowes) is but weake: and had I power to my will neither you nor any other should suffer for any of my sennes debts, and soe I beseech you conceive of me, and I shall as truly take this businesse into my thought as if it were myne owne and will use the best meanes I canne for yo' indempnity and soe w<sup>a</sup> myne & M' Davenports harty well wishes unto yo' selfe and my good cosen yo' wyfe I take leave and shall ever remayne

Yo' truly lovinge Cosen,

#### MARY DAVENPORT.

.

80<sup>a</sup> Sept. 1644 Addressed.

To the right wor<sup>n</sup> my very Worthy good cosen John Bradshawe Esq<sup>\*</sup> att his house in Basinghall Streete, London these present

Endorsed in the handwriting of John Bradshaw,

Octagon seal, a lion rampant. A l're from my Lady Davenp<sup>4</sup> dated 30 Dec. (qy. Sept ) 1644, son James & y<sup>4</sup> intention touch<sup>6</sup> her to save me harmless concerning my Ingagem<sup>6</sup> for him.

#### James Davenport to John Bradshaw.

Good Cousin,

.

I thanke you ever for your kindness towards mee & that yet in my lasting miserie you are pleased to give mee your friendly advice & assistance in my endlesse busines wherewith I shall acquaint my friends in the countrye: I am exceeding sorry to heare you are still soe tormented for mee & will forthwith write that those to whom I entrusted the discharge of that debt to M<sup>r</sup> Boys w<sup>ch</sup> was M<sup>r</sup> Wade, M<sup>r</sup> Coker, & M<sup>r</sup> Walthall that they may render theire account why interest is not paid as formerly & that they assist you so farr as they are able; soe desireing my service to bee presented unto my Cousin your good wife & your selfe I remaine

Paris May 25 1645. Your affectionate Kinsman & Ser<sup>4</sup> J. D.

Addressed, To my very Loving Cousin John Bradsbaw Esquire these present.

(In another hand writing)

"neewe Blackwell

Hall Endorsed in the handwriting of John Bradshaw, C\*\*\*\*\*\*." ffrome James Davenp<sup>1</sup> 25<sup>th</sup> May, 1645.

Oval seal with impaled arms, dex. a chevron betw. 3 cross crosslets with cresent for house sin. an ass statant?

We have next two letters from Mr. Philip Osborne, craving, at Lady Davenport's instigation, Bradshaw's intercession with his brother, who was a sequestrator for Cheshire, in behalf of a Mrs. Warren, the owner of an annuity, secured upon a sequestrated estate, and alluding also to the subject of the preceding correspondence.

#### Philip Osborne to John Bradshawe.

Worthy Sr

I presume before theise come to yo<sup>r</sup> hands you will have received full satisfaccon touching the books please yo<sup>r</sup> selfe and my Lady (for soe much as shee is in her owne p'ticler concerned) is contented and her La<sup>ppe</sup> is nowe become a suit<sup>r</sup> unnto you in the behalfe of her kinswoman M<sup>rs</sup> Anne Warren. The businesse is this, M<sup>rs</sup> Anne Warren about 13 yeares since purchased



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an annuity of 201 per annm from her nephew Mr Wurren of Ybynton that now is shee payd for it : 150/ we was the substance of her porcon left by her father, Mr Warren's estate about twoe yearce since was sequestrated for his delinquency since w<sup>th</sup> tyme M<sup>th</sup> Anne Warren hath bene a suitor to the sequestrato" (whereof wee conceive yo' brother to be one of the chiefest in authority) for an allowance of her annuity but canno get nothing but fruitlesse promises and noe penny of money, but one 5/ about halfe a yeare since, (a poore exhibition for a Gentlewomans mayntenance) all the comfort she receiveth is in good words from yor brother whose professed himselfs willings to help her all he canne, but nothings is done for her, her wants are greate havinge no other mayntenance : and were it not for my Ladyes charity shee would be exposed to extreme misery, my Ladyes request to you is that you would be pleased att her instance to write yo' l're in her behal e to yo' brother as effectually as you please that by his good meanes shee may bee relieved, there is nothing desired but what is most just. If you please to afford my Lady this favo' she desireth you to direct yo' letter to me that I may wayt uppon yo' brother whit, and receive his answere and attend him about the businesse as he shall direct, I beseech you excuse my boldnesse herein being pressed hereunto by the necessityes of a distressed gentlewoman. And soe wh the tender of my best service, I humbly take leave, remayninge over

11º Sept. 1645.

Yo<sup>n</sup> in all service obliged, PHILIP OSBORNE.

Addressed,

To the right wor" and my ever Hono" friend John Bradshawe Esq" att his house in Bassinghall streete London these present.

#### Philip Osborne to John Bradshawe.

Worthy S'

I rec<sup>4</sup> yo' last w<sup>4</sup> one inclosed to yo' brother w<sup>4</sup> I presented unto him at his owne house, he gave me a very faire and respective answere touching M" Warrens businesse & promosed his furtherance, and hath subtence helped her to five pounds in p'te of her arrears w<sup>4</sup> was very kyndhe taken by her it comes in a good tyme to supply her want of clothinge against this cold tyme I doubt not but by yo' brothers assistance whereof by yo' happy intercession I am confident, shee may receive some reasonable satisfaccon both for the rest of her arrears and for her annuity for the future; my Lady returnes many thanks, and takes it as a favo<sup>\*</sup> done unto herselfe ffor the bookes her La<sup>pps</sup> is much troubled that you should make any scruple about them and assures you, you have them by her free consent, and w<sup>a</sup>out any p'ucular opposicon to yo<sup>\*</sup> selfe by the trustees who are nowe verry well satisfyed that my La: may dispose of them att her pleasure. If you should nowe refuse them my La: would imagine it were out of some displeasure conceived, whereon her La<sup>pps</sup> is very tender, and soe I beseech you understand her, she is very sorry for yo<sup>\*</sup> sufferinge for her sonne about the interest to M<sup>\*</sup> Boys. M<sup>\*</sup> Ja: did specially appoint that interest to be payd out of his rente att Caresf: but howe he is nowe used by his father in Law Mr. Wood cance satisfye you. My Lady presents her kynde love unto yo<sup>\*</sup> selfe and yo<sup>\*</sup> good wyfe, and acknowledges yo<sup>\*</sup> favo<sup>\*</sup> for w<sup>ch</sup> shee will ever rest thankfull, and soe will

Yo<sup>r</sup> poore obliged friend & servant,

#### PHILIP OSBORNE.

Addressed,

To the right wor<sup>11</sup> and my ever hono<sup>ble</sup> friend John Bradshawe Esq<sup>e</sup> att his house in Basinghall streete, London these present. Oval seal.

a bugle horn bet" 8 stars.

Meantime Bradshaw was rising steadily and rapidly to the highest offices and honours parliament had to bestow.

In 1644, aged then 41, he was prosecuting counsel against certain Irish rebels of high station. In 1645, he was appointed junior counsel for the Commonwealth, and conducted John Lilborne's appeal against the severe sentence passed on him by the House of Lords in 1638, obtaining for his client remission of the sentence, and a compensation of £3,000. In 1646, he was elected by the House of Commons a commissioner of the Great Seal, but his appointment was overruled by the House of Lords, of whom he had spoken disrespectfully. This, however, did not prevent his appointment by both houses to the important and dignified office of Chief Justice of Chester; for amongst these papers we have a copy of the Ordinance so appointing him.

#### Ordinance of Parliament for the Chief Justiceship of Chester.

12º Martij 1646.

#### Die Martis 16° Martij.

The Lords and Comons in Parl' assembled takinge notice of the Delinquency of Sir Thomas Milward, Ku<sup>t</sup> late Chiefe Justice of Chester filynt Denbigh and Montgomery and of Richard Prythergh Esq' one other Justice there in their adhering to the late florces raised ag' the Parl' Doe hould fit to remove and displace the said S' Tho Millward and M' Prythergh of and from their said sev'all offices and doe hereby them amove and to all intents and purposes actually discharge them of and from the same. And for supply of those places and better adm'acon of Justice in the said sev'all Counties Think fit to order and ordeyne and doe hereby ordaine noiate and appoint John Bradshaw Esq' to be Chiefe Justice of Chester filynt Denbigh and Montgomery aforesaid and Peter Warburton Esq' to be one other Justice for the said countyes quand diu se being gesserint. And the Clarke of the Crowne in Chancery is hereby required and authorized after the usual fforme to prepare L'res patente for the said John Bradshaw and Peter Warburton accordingely. And it is ordered that the Com'' for the Great Scale of England doe passo the same L'res patente under the Great Scale and this shall be their sufficient warrant for the same. And the said Si' Tho Millward is hereby ordered and enjoyned to deliver up the Judicial Scale for the vaid Counties of filynts Denbigh and Montgomery upon the view of a copie of this ordinance unto the said John Bradshaw or such person as shall be authorized by the said John Bradshaw under his hand and seele to receive the same Jo: Browne Cler Parl<sup>1007</sup>

H. ELSINGE Cler Parl<sup>t</sup> D. Com

(vera copia Ex' p. me R Thelwall)

Indorsed,

Copy of y ordine of both Houses 1646 160 for supply of y Judicial places of filint Denbigh & M'Gomerie.

In 1647, et. 44, Bradshaw was counsel against the intrepid Welsh Judge Jenkins, known by the sobriquet of "Heart of "Oak," who so boldly defied the Government and declared his resolution to go to the gallows with the Bible under one arm

and Magna Charta under the other. In 1648, he was made a Sergeant-at-Law. In January, 1648-9, he was appointed Lord President of the High Court of Justice, specially instituted by Parliament for the trial of Charles I. He is said to have coquetted with this onerous appointment, objecting and hesitating as though he did not expect or wish for it; and this has been strongly insisted upon as proof of his hypocrisy; but surely the open and downright nature evinced by Bradshaw in most of the other actions of his public life may be held sufficient to relieve his memory of this imputation, and lead us to suppose rather that even the daring spirit that did not flinch from bearding the unscrupulous despot Cromwell in the zenith of his power was, for the moment, staggered in contemplating the responsibilities and the inevitable odium attaching to an office unread of in history.

He has also been charged, almost universally, with exhibiting insolence and even brutality towards the unfortunate monarch during his trial. After careful study of every report of the King's trial I could obtain, all manifesting a strong royalist bias, or, at least, a strong feeling of sympathy with royalty in misfortune, I must declare my conviction that this odious charge is scarcely warranted by the facts. I find that he was firm to sternness, possibly even to harshness on one or two occasions, in repressing, or rather, perhaps, crushing, the attempts of Charles, renewed persistently throughout the proceedings, to dispute the authority or impugn the jurisdiction of the court. Bradshaw, as president and mouthpiece of the court, was bound, at whatever cost, to maintain its competency, and it is difficult to believe that he could have succeeded so completely in maintaining it had his demeanour been more gentle or more in accordance with what most of us feel was due to a king-even to a king formally on his trial for "tyranny, treason and murder."

For his services on this portentous occasion Bradshaw was



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rewarded by parliament with large grants of money, annuities and estates. Of the last, the so called delinquency of so many noblemen and gentlemen of the King's party, and the consequent forfeiture of their properties, placed an abundance in the hands of the parliament wherewith to reward and enrich those who were most ardent and efficient in supporting its cause. Connected with the management of one of the several estates so granted to John Bradshaw, we have in this collection a blank form for the nomination of a bailiff or receiver, written out, signed and endorsed in his hand.

Form for the Appointment of Bailiffe.

#### Oval Seal of red wax,

Arms 2 bends bet" 2 martlets crest a Lion?

Know all whom these p'sents may concerne that I John Bradshaw Lord President of the Councell of State doe by these p'sents constitute ordeine & appoint

of in the County of Som'set gentl<sup>a</sup> my Bayliff of all the Manors Linds Tenem's and hereditaments late the inheritance of ffrancis Lord Cottington situate and being in the suid County of Somerset (forfeited through his treason and Delinquency to the State) and now setled upon mee by act of this p'sent Parl<sup>a</sup> and doe constitute him my Collecto' and Receiver of all and singular the Rents issues p'fits ffines Amerciam<sup>b</sup> p'quisites of courts growing arising coming due or payable forth of for or in respect of the p'mises or any p' thereof And doe make him Surveyor of all and every the p'mises. To have execute doe and performe the said offices untill such time as I shall take other and further order therein Given under my hand and seale this 30<sup>th</sup> day of August, 1649.

Jo: BRADSHAWE.

Indorsed,

" blancke for bayliffe 1649 "

This otherwise unimportant paper shews that Bradshaw, in the year 1649, aged then 46, had been elected President of the Council of State. This is of consequence because there has been some discrepancy exhibited by his biographers on that point. The Council, over whose deliberations he was chosen to preside, consisted of thirty-eight members, including several of the hereditary nobility of the Kingdom, as the Earls of Denbigh, Mulgrave, Pembroke, Salisbury &c., the leading members of the House of Commons and the principal officers of the army.

In 1650, he was made Chancellor of the Duchy of Lancaster; and in the same year was elected by the other governors a governor of the Charter House, superseding the Lord Robarts of Truro. The patent for that appointment, elaborately engrossed on parchment, is in this collection and is transcribed here.

To all Christian people, to whom this present writing shall The Governors of the Lands Possessions Revenewes come. and goodes of the Hospitall of Kynge James flounded in Charterhouse within the County of Middlesex, at the humble peticon and onely costes and charges of Thomas Sutton Esquire send greetinge in our Lord God everlastinge. Whereas the right honorable John Lord Roberts was heretofore chosen to bee one of the Governours of the Landes possessions revenewes and goods of the said Hospitall Now knowe yee That wee the Governours of the Landes Possessions Revenewes and goods of the foresaid Hospitall for certain known causes Do thinke fitt to remove the said John Lord Roberts from his place of a Governour and according to the power and authority to us given by the Letters Patents of our late Soveraigne Lord King James of the ffoundacon of the said Hospitall bearinge date the Twoe and twentith day of June in the nynth years of his Raigne, Doe hereby absolutely remove and discharge the said John Lord Roberts from beinge any longer a Governour of the Landes Possessions Revenewes and goods of the said Hospitall and in the place of the said Lord Roberts Wee doe hereby elect nominate choose and appoint the right honorable John Bradshawe Serjeant at Lawe and Lord President of the Councell of State to bee henceforth one of the Governours of the Landes possessions Revenues and goods of the Hospitall of King James founded in Charterbouse within the county of Middlesex at the humble peticon and onely coste and charges of Thomas Sutton Esquire in the Roome and place of a Governor for being voyde by the removall of the said John Lord Roberts as aforesaid To bee and continue in the said Roome and place; and to have exercise and enjoy the roome and place of one of the Governors of the Landes Possessions Revenues and goods of the Hospitall aforesaid according to the true intent and meaning of the said Letters Pattents In witnes whereof the said Governours have hereunto sett their comon scale and

every one of them his perticular scale the eighteenth day of May in the years of our Lord God one thousand size hundred aud ffvfty.

> Salisbury Leffoway W. Armyne 8. Garrard

S	igned	
	.enthall	
P Lis	le	
OI: S	John	
J. Sel	len	

The seals are all destroyed. Indorsed in the hand writing of Bradshaw, " Govno'ship of Sutton Hospitall."

All the names subscribed to this deed are those of distinguished contemporary statesmen, namely, Lenthall, the Speaker of the House of Commons; the Earl of Salisbury; Philip, Lord Lisle, eldest son of the Earl of Leicester, and brother of Algernon Sidney; the Lord Leffoway; the Lord Chief Justice, Oliver St. John ; Sir William Armyne ; John Selden; and Sir Gilbert Gerrard. Nine short straps are attached to the fold at its foot for the reception of the seals of the several subscribers.

The next document is also a parchment, being the counterpart of a lease of lands in the parishes of Founthill, Gifford, and Tisbury in Wiltshire, granted by the Lord President to "Thomas Shergold," of Hendon in the same county.

Endorsed, Wilts.

A counterpart of a lease to Thomas Shergold for Seaven yeares comencing at Michas 1651 under the rent of 432 per Ann.

The next paper is one of peculiar interest, being the draft of a letter in Bradshaw's writing to the parishioners of Feltham. It throws considerable light on the character of the most prominent, and probably therefore, the most heavily aspersed of all the members of the regicide court, and as I am impressed, it bears on the face of it satisfactory evidence of the writer's sincerity, and of his readiness to recognize a serious responsibility and to meet its requirements. It is remarkable too for the earnest simplicity and clearness of its

language, the affectionate regard for the highest interests of the people addressed, and for the spirit of manly piety manifested in its general import

The Lord President to the Parishoners of Feltham.

Neighbores & ffryends :

The p'lyam' of Engl<sup>4</sup> having bene pleased to conferre an In-terest upon me amongst other things of y<sup>•</sup> Tythes of yo<sup>•</sup> parysh & my desyre being that you of that place should flare y<sup>•</sup> better for it in what concerns you touching Spyritualls I have thought fit hereby to sygnyfy unto you my purpose of p'vyding you every Lords day and oth' flytting tyme an able & ffaythfull minister to dispense unto you y° mysteries of y° Gospell you being as I heare verie much at want of such a p'son. My pur-pose also is through God's assystance, to setle a competent maintenance for such a minister for all terms to unto a maintenance for such a minister for all tyme to come out of what is y° right of you of y° parysh to pay wi'hout putting you to any oth' charge. In y° mean tyme my Request to you is That you would blesse God for theise opportunities & meanes of Grace & make  $y^e$  best use of them for Gods glorie & your owne Soules good w<sup>ch</sup> that you may doe is my heartie prayer & desyre & so farre as shall be in my power shalloe my syncere Endevo' who through Gods p'vydence am related to yo' neigh-bo'hood & shalbe ready & willing to assyste & further you in any good way.

Whytehall 4° 8<sup>br</sup> 1651

J. B.

"For my very loving neighbo"

and ffriends the Parishion" of ffeltham.'

Indorsed in a different hand, " 4. Octobr 1651

Draught of my Lords l're to the Farishion" of ffeltham

touching a constant Min"."

In April, 1653, when Cromwell after dispersing the Parliament went, supported by Lambert and Harrison, to inform the Council of State then sitting, that their functions as a council were at an end, Parliament, as they must know, being dissolved; we are told that the Lord President braved him defiantly thus. "Sir, we have heard what you did at the "House in the morning, and before many hours all England

"shall hear it. But, Sir, you are mistaken to think that the "Parliament is dissolved, for no power under heaven can dis-"solve them but themselves : therefore take you notice of " that."

The only documents in this collection relating to this period are certain leases and bonds for the payment of rents given by tenants on different estates assigned to the Lord President by the Parliament. One of these bonds, which are curious as specimens of the legal phraseology of the time, may serve as an example of the whole, the wording of all being alike.

Know all men by these p'sents that I Oliver Tinker of the p'ish of Tisbury in the county of Wilts yeoman am houlden and firmely bound unto the right Hon<sup>in</sup> John Bradshawe, S'jeant at Lawe, Chancell' of the Duchy of Lancaster and Chiefe Justice of Chester in one hundred and twenty pounds of good and lawful money of England to be paid to the sujd John Bradshaw or his certayne Attorney his Executo" addm<sup>in</sup> or assignes to which payment well and truely to be made I binde mee my heires executo" and adm<sup>in</sup> firmely by theise pisents, sealed with my scale. Dated the five and twentieth day of Max One thousand aire hundred fifty three. May One thousand sixe hundred flifty three : The condition of this obligation is that if thabove bounden Oliver Tinker his executors adm" and assignes and every of them doe and shall from tyme to tyme and at all tymes hereafter well and truely pay and satisfy or cause to be pajd and satisfyed all such rents and payments which on his and their parts and behalfes are and ought to be paid and satisfyed as the ame are contayned and reserved in certeyne Indentures bearing date the day of the date of the said obligation and had and made between the said John Bradshaw of the one partje and the said Oliver Tinker of the other partje and all and every matter and thing according to the same intent and meaning of the sajd Indentures, that then the said obligation to be void or else to be and remayne in its full power strength and virtue

OLIVER O. T. TINKER (seal) his M<sup>a</sup>

Sealed and delivered in presence of **Robert Hayshaw Richard Dolcing** Peter Newton Jo: Watson

Endorsed, 1653 Oliver Tinker his bond for paym' of y. 60£ per Ann.

founthill Wilts.

We have also, of this date, a parchment counterpart of a lease of ten acres of coppice wood, or underwoods and a house in the parish of Tonbridge in Kent, endorsed "Mr. "Downes the counterpart of his lease."

This Indenture made the ffirst day of October in the year of our Lord Oue thousand size hundred ffiftie three Between the right Hon<sup>ble</sup> John Bradshawe S'jeant at Lawe Cheife Justice of the one partie, and Daniel Downes of Bitborough in the County of Kent gentleman of the other partie, witnesseth that the sayd John Bradshawe for & in consideracon of the yearely covenants condicons & agreements herein hereafter menconed Hath demysed graunted & to ffarme letton [letten?] and by these p<sup>r</sup>sents doth demyse grant & to ffarme let unto the sayd Daniel Downes All those his Coppicewoods or underwoods now groweing & being or which at any tyme hereafter during the p'sent lease shalbe growing & being upon all those woodlands conteyning by estimation Ten acres or thereabouts be the same more or lesse usually encopiced & occupied with a certaine messuage or tenement situate lying & being within the parish limitte & p<sup>r</sup>cincte of Tonbridge in the said County of Kent & being sometime a parcell of the possessions of the late dissolved Priory of Tonbridge aforesaid and now or late in the tenure or occupacon of Thomas Walker and John Terrey their assignee or assignees and alsoe the lops and shrowds of all trees now groweing & being upon the said woodlands which at anie tyme heretofore have beene lopped or shrowded together with free liberty at all seasonable tymes of the yeare to sell cut coard coale digg & carry away all or anie part of the said underwoods & lopps of trees and to convert the same or anie part thereof into coale and for that purpose to erect colliers lodges & to make hearthes & to take other fitt and necessary provision therefor & towards the making the said coales, and the same coales soe made from tyme to tyme to take carry away and dispose of except and forth of this p'sent demyse always reserved to the said John Bradshawe his heires tennts & assignes the herbage & pasture of the said woodlands to be spent & eaten after the and with noe manuer of catteli within the sayd flive yeares And also eexcept all royalties of hawking hunting fishing & fowleing in & upon the said woodlands To have and to hould the said underwoods or coppicewoods & lopps of trees together with all the Liberties eforecast (grant hofer excepted) to the with all the Liberties aforesayd (except before excepted) to the said Daniel Downes his executors adm<sup>n</sup> & assignes for & durieng

& unto the full end & Terme of One & twenty yeares from henceforth next & imendiately ensueing & foure penes of lawfull money of England at or in the now mansion or dwelling house of him the said John Bradshawe situate & being on Somerbill in Southfryth in the parish of Toubrige aforesaid on the flive & twentyeth day of March & nine & twentyeth day September by even & equall portions Provided alwayes that if it shall happen that the said yearely rent or anie part thereof shallo behinde and unpaid at ether of the said dayes of payment & by the space Eight & twenty dayes next ensueing either of the said dayes of payment being demannded (although the said demannd be not made according to the p'cise forme of lawe) that then & from thenceforth it shall & may be lawful to & for the said John Bradshawe his heires & assignes into & upon the said demysed p'mises & every or anie part thereof to reenter and the damaged land to re sesse & have againe as in his or their first & former estate this Indenture or anie thing therein contayned to the contrary thereof in anie wise notwithstanding And the said Daniel Downes doth for himselfe his executors adm" & assignes covnnt promise & graunt to & with the said John Bradshawe his heires executors adm" & assignes by these p'sente that he the said Daniel Downes his executors adm" & assignes shall & will imendiately after everie felling of the said underwoods or coppicewoods or anie part thereof well & sufficiently fence & inclose the said woods or see much thereof as shalle see felled, & the same see fenced & inclosed shall & will keepe & p'serve from all manner of spoyle or destructon by cattell or otherwise by the space of flive yeares next after every selling And whereas the said John Bradshawe his heres & tenannts & assignes is & are to be excluded by the true intent & meaning of the said p'sents from the haveing & takeing the herbage & pasture of the said woodlands by the space of five whole yeares next after everie selling thereof during the said Terme It is now covenannted graunted concluded & fully agreed by & between the said porties to these p'sents and the said Daniel Downes doth for himself his executors adm" & assignes covenant promise & graunt to & with the said John Bridshawe his heires & assignes by p'sents that he the said Daniel Downes his executors adm" & assignes shall & will yearely & every yeare dureing the first three yeares of the said flive yeares next after every felling of the said underwoods or coppicewoods yeald & pay or cause to be yealded & paid to the said John Bradshawe his heires & assignes the yearely rent of Twenty shillings and for the two last es of the said flive yeares the yearely rent of Twenty five shillings Eight pence at the days and place of payment aforesaid by even & equall porcons Nethertheless the said John Bradshawe doth agree that if all the said underwoods shall not be felled in anie one years that he the said John Bradshawe his

heires & assignes shall and will allowe and abate to the said Daniel Downes his executors adm<sup>\*</sup> & assignes soe much of the last reserved yearely rents as shalbe proporconable to the woods remaining unfelled & whereof he the said John Bradshawe his heires tenants and assignes shall have the herbage & pasture untill the felling thereof And the said Daniel Downes doth for himselfe his executors adm" & assignes further covint promise & graunt to & with the said John Bradshawe his heires & assignes by these p'sents that he the said Daniel Downes his executors adm" & assignes shall & will leave the said woods & underwoods of the full growth of three yeares at the end of the said terme or sooner determinacon of this present Lease and the said John Bradshuw doth for himself his heires & assigns covenant promise & graunt to & with the said Daniel Downes his executors adm<sup>10</sup> & assignes by these p'sents that he the said Daniel Downes his executors adm<sup>11</sup> & assignes shall & may under & upon the yearely rents covenants reservations & agreements aforesaid on the part & behalfe of the said Daniel Downes his executors adm" & assignes to be paid performed & done peaceably & quietly have hould occupy possesse & enjoy the said underwoods or coppicewoods lope of trees & all & singular other the demysed prmisses with their apprtenances without the lawfull let deniall interrupcon or eviction of the said John Bradshawe his heires or assignes or of anie other person or persons lawfully claymeing anie estate right tittle or interest by from or under him them or anie of them In witness whereof the parties above said have hereunto their hands & Seales interchangeably set & put the day & yeare ffirst above written.

The seals are broken off, but the marks remain in small pieces.

Indorsed at back,

" M' Downes the counterpart

of his Lease."

After the seizure of supreme authority by Cromwell, Bradshaw, who always denounced that act as a betrayal of the cause of the people, missed no opportunity of opposing him, openly defied his power and joined in most of the conspiracies against it; indeed he shewed that he would gladly have rendered to the Lord Protector the same service which, mainly by Oliver's means, he had some years before rendered to the King. When required by Cromwell to take out from his government a new commission as Chief Justice of Chester, he resolutely refused, on the ground that the com-



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mission he held already under the Ordinance of both Houses of Parliament was to continue "quamdiu se bene gesserit," and declared that therefore he would retain it unless it could be shewn that it was forfeited by some failure in integrity on his part. If that question were raised he would have it tried by twelve Englishmen. He then set out upon his circuit.

Cromwell was deeply incensed by this contumacy and caused him to be opposed in the next election for Cheshire, but such was Bradshaw's popularity in his own county, that he was returned in the face even of the powerful influence brought to bear against him. He was no match for the Lord Protector, however, whether in power or policy, and another member was declared to be also elected ; this double return, as the law stood preventing either from taking the seat. Notwithstanding his unconcealed hostility, Cromwell, knowing his value and influence, tried to conciliate " honest Bradshaw," as he styled him, by causing measures to be passed for his advantage, and by shewing him every outward mark of deference and respect. Thus, in September, 1653, he caused the Parliament specially to enact that the continuance of the palatinate power of the Duchy of Lancaster should be vested in the Lord President, certain similarly high offices, held by other less important personages, being abolished. And in April, 1654, at a state banquet given at Whitehall by Cromwell to the Ambassadors of the United Provinces, "The Lords of the Council with " some colonels and other gentlemen dined at two tables in the " same room ; and the Lords Ambassadors, the Lord President " and the Lord Lisle at the same table with his Highness.". Bradshaw, however, was not to be thus won over, and each watched the other with the most sedulous attention. Lord Campbell, who, in constructing his account of the Lord President Bradshaw, has drawn his materials obviously from hostile

• Mercurius Politicus

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sources, says of this part of his career, that "we must in "fairness allow that he now acted his part with consistency "and courage." It was probably about this time that he declined the peerage proffered him by the Lord Protector.

In 1656 it would seem that interferences, open and surreptitious, with the discharge of his judicial duties were brought into operation. Amongst the latter was a petition, which he thought treacherous, circulated in his own county. Respecting this we have here a most valuable letter written throughout by Bradshaw, but not signed; the address, too, is torn away, probably by design, as there is no name given in the whole letter, though several persons are indicated by initials or otherwise. The latter division of this production refers chiefly to the private affairs of the individual to whom it has been addressed, and the kindly, almost paternal interest evinced by the writer in those would lead us to infer that it was written to some near relative.

#### From the Lord President to a Friend in Cheshire.

#### (Address torn away.)

Yo<sup>r</sup> le're of y<sup>e</sup> 12<sup>th</sup> instant is rec<sup>d</sup> and yo<sup>r</sup> former narrative touching y<sup>e</sup> Chesh<sup>re</sup> Election came likewise to hand for both w<sup>th</sup> & yo<sup>r</sup> care paines & faithfuln<sup>e</sup> therein expressed & by yo<sup>r</sup> Actings manifested this returns you thankes & prayes you to tend<sup>r</sup> y<sup>e</sup> same to those honest ffriends who have showed their good will in y<sup>e</sup> late troublesome busyness at Chester.

I am much troubled & startled at  $y^{e}$  Petition  $yo^{r}$  last l're speakes of & if anie such thing be looke upon it as a Designe in  $y^{e}$ contryverse of it, yet further to lesson me in  $yo^{r}$  parts. I have as good a tytle to my place as plment or Patent can make me, not impeached but confirmed rather by  $y^{e}$  Instrumt of  $y^{e}$  present govnmt w<sup>ch</sup>  $y^{e}$  Pr is sworne not to violate but to observe & cause to be observed; If either then  $y^{e}$  old Law or  $y^{e}$  new stands or  $y^{t} y^{e}$  Pr keepe his oath, I am safe enough & none needs to begge favo' for me; But if florce he determined & in my particular the law of p'pertie trodd und' foote.  $y^{e}$  case being everis mans in  $y^{e}$  conseq<sup>te</sup> of it I shalbe content to suffer & tarry Gods tyme for righting of me, Nor would I have  $y^{t}$  tyme anticipated or my condition bettered by anie unworthie application in my behalf. If  $y^{e}$  hand of violence p'vent me from keeping  $y^{e}$  publ' sessions

(w<sup>th</sup> by this tyme I suppose are warned & published) y<sup>e</sup> country who will also therein suffer may then consider what on their part is fit to be done & to whom to complayne (if a p'lam' be sytting) In y<sup>e</sup> Interim such courses as are now in agitation may be better forborne then proceeded in, neither can I look upon y<sup>e</sup> Designers of them as wyse or reall ffriends. Thus much see you impart as my mind & Resolution As you shall see occasion.

Conc'ning yo' Manch' m<sup>m</sup> my advyce is you be assured in y<sup>\*</sup> 1<sup>m</sup> place y' she be free to place her affection & uningaged to anie other not p'ceeding If there be any strong suspicion of such a matter. 2<sup>th</sup> if she do not be cleared Then looke well to it, that you can love her & in case you cloze that you can hope to lyve a contented & comfortable lyfe with her in regard of what you can see & hopefully judge of her; Or els in y' name of God medle not but w<sup>a</sup>draw betymes & that in y' fairest manner you can that no Reflections be either upon her or your self. (wryte what happens hereupon.) I would have you imediately upon receite hereof to repaire to Marp' shew theise lynes to o' fird there whose l'res I have rec' & will answ' y<sup>m</sup> (God p'mytt<sup>4</sup>) by G. N. of Stockp<sup>1</sup>. In y' meane tyme I acknow<sup>40°</sup> his very great & affectionate care to me wards & thinke my self much in his Dett for it. Speake w<sup>6</sup> W. W. also of theise things & with whom els you will that they be not cozened w<sup>6</sup> y' Devises & faire Glosses of those who carry on y' Petition, If there be any furth' doings in it. If I were stored w<sup>6</sup> mon<sup>6</sup> as at p'sent I am not I would helpe you acc'd<sup>6</sup> to yo' Desires : you may try if yo' broth' C. will spare you for a tyme y' 200l w<sup>ch</sup> he is to have of me & I will endeav' to find out some one to lend you another 100*l* having an eye upon S. R' who possiblie may do it. I blame you not for being so wary in yo' deal<sup>6</sup> I may get some 00*l* next yeare aforehand & then I may offer you a Partn'sh<sup>9</sup> you dreame not on, & try how honest & successfull you may prove. Rememb' me to yo' good mother & all fir<sup>4</sup> & be verie carefull how & w<sup>6</sup> whom you conv'se neverforgetting y<sup>e</sup> honest heath<sup>m</sup> advyce honeste vivere nemini nocere, suum cuique tribuere & always having in mind Pauls 3 Adverbs Pie, Juste, Sobrie.

ffarewell

# 16• 7 ••• 1656. Indorsed.

# Likewise connected with these troubles we have the copy of a letter from Bradshaw to Henry Cromwell, the Protector's younger son and Lord Deputy of Ireland, in which the tone of dignified remonstrance and the determination to discharge,

in defiance of all obstructions, the duties of what appears to have been at all times his favourite office, are specially worthy of remark. It is also entirely in the Lord President's writing.

#### From the Lord President Bradshaw to

### Lord Henry Cromwell.

My Lord :

I know It is not out of yo' Lo<sup>ps</sup> memory what passed at my last appearance befor His Highnes & y° Councell at w<sup>ch</sup> tyme I was occasioned to declare my purpose to procede in y° Execution of my Judiciall office in y° 4 counties to w<sup>ch</sup> I relate & y° obligations upon me w<sup>ch</sup> necessitated me to such Resolution. In pursuance thereof the Assizes & great sessions are appointed to be held in those places respectivelie & those at Chester are to begin on Munday senight next this Tyme of y° yeare being y° usuall season for those occasions w<sup>ch</sup> in regard to myself & Dutie I could no longer neglect. The conscientious consyd<sup>\*</sup>ation of what herein is incumbent upon me to doe at least to endeav' (wherein y° discharge of my L<sup>d</sup> Protect" owne oath as to doing Justice in those parts is also clearlie involved) hath bene & is w<sup>th</sup> me y° cogent Argum<sup>t</sup> to continue in y° intention by me formerlie Declared, wherein for approbation I dare presume (my case and all circumstances dulie weighed) yo' Lo<sup>ps</sup> owne Judgm<sup>t</sup> will concurre, as being satisfyed that thereby I neith<sup>1</sup> offend old Law nor new but should do both if I did otherwise & indeed besides wronging my conscience w<sup>th</sup> y° hazard & Brand of p<sup>\*</sup>yurie incurre y° penaltie of forfeiting my office w<sup>th</sup> such oth' penall blemyshes as any honeste man (in his right wits) would be willing to avoyde.

My Lord: I have according to such opportunities as  $y^{\circ}$  Lord hath bene pleased to vouchsafe unto me & to the best of my abilities endeavo'ed in  $y^{\circ}$  course of  $y^{\circ}$  part of the magistracie entrusted to my charge to answere  $y^{\circ}$  ends of Gov'nm' in being a terro' to evil workes & workers & a prayse for them that doe well & I trust through  $y^{\circ}$  assistance of Dyvine Grace to hold on in so doing & when my call to further actings of this publique nature through whatsoever p'vidence shall cast & I shall yet have  $y^{\circ}$  comfort of my Integritie & plaineheartedness in theise things. My Lord

Yo' Ingenuitie & cando' to all & p'ticular Respects often manifested to my self (ever by me to be gratefullie acknowledged & remembered) give me y<sup>c</sup> boldnes to transmit & leave these lynes w<sup>a</sup> you And if thereby & by yo' good meanes mysconstruction may be p'vented or any evill cousequences y'of (whereof

I am not conscious to my self of giving any reall cause) I shall happilie attayne my desyres & hopes be ingaged for all yo' noble ffavo" to expresse my self At all tymes

(My Lord)

Yo' Lo<sup>pe</sup> most faithfullie to serve you J. B.

Indorsed,

(Copy of my let" to my L<sup>4</sup> Dep. of Ireland sent by Col. Sankie to him at my coming away on Saturda<sup>7</sup> 27" 7" 1656.

The uncompromising republicanism of Bradshaw rendering all Cromwell's efforts to win him over of no avail, and the respect in which he was held by his party deterring the latter from taking measures for crushing him, of a more open or decided character than those indicated in the letters just given, these two men, the most prominent of their time and country, remained in a position of mutual distrust, and of enmity all the more intense that it had to be partially concealed. Their animosity, however, was sufficiently visible to those about them, and in November, 1657, Whitlock states that "the dislike between them was perceived to increase."

Cromwell's death in 1658 relieved Bradshaw from the danger in which every day of his life, for some years, had been passed. In the following year he was re-elected President of the Council of State and again appointed a joint commissioner of the Great Seal; but his failing health compelled him to ask to be relieved from the dutics of the latter office.

Nevertheless, he continued to preside over the Council, and his last act there, which was the last of his public, indeed, almost of his natural life, was characteristic of the man. Lenthall, the Speaker of the Commons was stopped on his way to the House by Colonel Dukinfield, under the direction of General Lambert, and compelled to return home. The

proceedings in Parliament were thus, once more, forcibly suspended; and this violence being spoken of by a military member of the Council, as required by a particular call of Divine Providence, the President stood up, and, interrupting the speaker, "declared his abhorrence of that detestable "action; and telling the Council that being now going to his "God, he had no patience to sit there and hear his great "name so openly blasphemed."\* He then abruptly quitted the Council Chamber, and so retired from public affairs.

The only relic of this, the last year of his life that we have amongst these documents, is a parchment deed of sale, of date July 14th, 1659, by Edward Manning of flaubston or flaberston, in the County of Wilts, Esq., to John Bradshaw, Sergeant at law, one of the Lords Commissioners for the custody of the Great Seale of England and Chief Justice of Chester, of certain meadow lands adjoining the Manor of Founthill. Some of his biographers say that Bradshaw was deprived of the Chief Justiceship of Chester by Cromwell. This document proves that either he never ceased to hold that office, or had been reinstated in it, for it describes him *inter alia* as Chief Justice of Chester *then*.

His biographers are also in error as to the date of his death which, they say, occurred on the 22nd of November. There are many evidences of the incorrectness of this date; amongst them the public prints of the day, from one of which, "The Mercurius Politicus," I abstract an obituary notice.

"Whitehall, Oct. 31. This day it pleased God to put a "period to the life of Lord Bradshaw, after a yeare's lingering "under a fierce and most tedious quartan ague, which, in all "probability, could not have taken him away yet awhile had he "not by his indefatigable affection toward the public affairs "and safety, in a time of danger, wasted himself with extraor-"dinary labours from day to day. For the Commonwealth

· Ludlow.

"he always lived, and for the sake of the Commonwealth he "died so soon."

It is well known that the bodies of Cromwell, Ireton and Bradshaw were exhumed and subjected to indignities, a thousand times more disgraceful to the contemptible government that ordered them than to the unconscious objects of its futile and dastardly vengeance. As in the case of Cromwell's remains an apocryphal statement has been made with regard to the ultimate fate of those of his great associate and opponent. In the life of Thomas Hollis it is asserted that Bradshaw, foreseeing the restoration, escaped to the West Indies and died there peacefully many years afterwards ; a cannon having been exhibited, and I believe preserved, inscribed with an ably written and strongly eulogistic epitaph, intimating that John Bradshaw's dust lay there, and winding up with the axiom which the subject of the epitaph might have adopted for his motto, that "opposition "to tyrants is obedience to God." Were any serious refutation of this story called for, we may find it, oddly enough, in the notes to some editions of Hudibras where a quotation is given from "the M.S. diary of Mr. Edward Sainthill, a Spanish "merchant of those times, preserved by his descendants." This extract, though somewhat ghastly in its details, is so illustrative of the character and feelings of the times, especially of the indifference or rather levity with which these and similarly revolting exhibitions were regarded by the citizens, who enjoyed such frequent opportunities of witnessing them, that I reproduce it here.

"The 30th Jan being that day 12 years from the death of "the King, the odious carcases of Oliver Cromwell, Major "General Ireton and Bradshaw were drawn on sledges to "Tyburn, where they were hanged by the neck from morning "until four in the afternoon, Cromwell in a green cere cloth "very fresh, enbalmed; Ireton having been buried long hung "like a dried rat, yet corrupted • • • • ; Brad-

"shaw in his winding sheet, the fingers of his right hand and "his nose perished, having wet the sheet through; the rest "very perfect insomuch that *I knew his face* when the hangman "after cutting his head off, held it up. Of his toes I had five "or six in my hand, which the 'prentices had cut off. Their "bodies were thrown into a hole under the gallows in their "cere cloths and sheet. Cromwell had eight cuts, Ireton four "being (in) cere cloths and their heads were set up on the "south end of Westminster Hall.

> "Ireton died the 26th November, 1651. "Cromwell " 3rd September, 1658. "Bradshaw " 31st October, 1659."

John Bradshaw died without issue. By his will, after providing for his widow and other relatives, he bequeathed £700 for the purpose of maintaining a free school in Marple, and £500 each for increasing the salaries of the masters and ushers of the schools of Bunbury and Middleton, where he says he received part of his "educ" and returne this as part "of my thankfull acknowl" for the same." He also left an annuity of £40 for seven years to Saml. Roe his secy. for maintaing him at Grays Inn; £250 to the poor on his varions estates; £10 "to my kinsman John Milton," and £5 each to all his servants.

Though the will was proved on the 16th of December, six weeks after the testator's death, it is probable that most of these interesting bequests were rendered nugatory by the restoration, and the resumption of the estates by their former owners.

There are few names in history that have been so generally blackened by those who profess to write it, and there are few that have been more brightened by casual or incidental comment than that of the Lord President Bradshaw. He is depicted even by comparatively favourable writers as stern and intolerant in asserting the principles he professed to be guided

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by in religion and in politics, as tenacious to tierceness of the dignity attaching to any of the high offices he administered, and as somewhat overbearing in asserting that dignity. The facts that have come down to us, separated from the obloquy heaped upon his memory, call for no more severe judgment than this; and we may gather from this correspondence that in his personal attributes he was unpretending, single-minded and consistent, equally indifferent to aspersion and eulogium, so long as he felt assured of the approval of his own conscience; that in all his transactions he never lost sight of his duty to his country, or of his responsibilities as a servant to whom many talents were entrusted by his master; and we can believe that had it been possible for him to choose his own epitaph, from all that has been written respecting him, he would have selected the brief and significant commentary of his contemporary, Whitlock, who summed up his character thus-"A stout man, and learned in his profession : no friend to Monarchy."

I shall take another opportunity of noticing the family from which this extraordinary man derived his descent—the Bradshaws of Marple and Wybersley. More especially of another prominent member of that family, Colonel Henry Bradshaw, the Lord President's eldest brother, whose diary of personal disbursements, extending over several years, affords an interesting view of the ways of life followed by a Cheshire squire two hundred years ago, who took a leading part, in his own county, in the agitated public affairs of his era.

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The following is a list of the original documents relating to the Lord President Bradshaw in the possession of A. R. Lingard, Esq., and referred to, or embodied, in the foregoing paper :---

			DATE
1.	Copy of Register of Baptism	•••••••••••••••••••••••••••••••••••••••	1602

- 2. Patent for the Stewardship of the Manor of Glossop ..... 1630
- 8 A Bond to pay Philip Antrobus £93...... 1634
- 4. A letter to Bradshaw from Peter Daniel, Esq...... 1639

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5	A letter to Bradshaw from Mrs. Green, of Stapely	1689
6		1641
7.	Do. to Bradshaw from James Davenport, Esq., of Sutton, son of Sir Humphrey Davenport, of Bramhall	1440
B	A letter to Bradshaw from Lady Davenport	
9		
10	-	
11	-	
12	Do. do. from James Davenport	1645
13	Copy of Ordinance of both Houses of Parliament, appoint-	
	ing Bradshaw to the Chief Justiceship of Chester	16 <b>46</b>
14	Blank form for appointment of Bailiff, in Bradshaw's	
	8	1649
15.	Copy of Case, and Claim to the lands of Stapely, laid	1440
18	before the Court of Sequestration Patent of Bradshaw's election to the Governorship of the	1049
10.	Charter House, or Sutton's Hospital	1650
17.	Counterpart of a Lease, granted by Bradshaw to Thomas	
	Chergold, of lands in Wiltshire	1651
18.	Draught of a letter, in Bradshaw's writing, to the Parishioners of Feltham, respecting the appointment of	
	a regular minister	1651
19	20, 21. Bonds for the Payment of Rents by tenants on	
	Bradshaw's Estate at Tunbridge	1652
22.	Do. do. at Tisbury in Wiltshire	1658
23	Counterpart of a Lease granted by Bradshaw to Daniel	
	Downes of part of the priory lands of Tunbridge in Kent	1653
24.	Letter from Bradshaw to a friend in Cheshire respecting	
25	the government interference with his election, &c Do. do. to Henry Cromwell, Lord Deputy	
20	of Ireland, respecting obstructions to the discharge of	
	judicial duties in Cheshire, Flint, Denbigh and Mont-	
	gomery	
26.	Deed of Sale by Edward Manning of lands adjoining Bradshaw's mansion of Fontbill, Wilts	1659
	-	
27.	Address, in Latin, of certain exiles from Bohemia to	

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# ON THE FLORA OF PRESTON AND THE NEIGHBOURHOOD.

#### PART III.\*

#### By Mr. Charles Joseph Ashfield.

#### READ IST MAY, 1862.

Hippuris vulgaris, Linn.—Ditch near Lytham Lighthouse. Lemna polyrhiza, Linn.—Canal at Preston, plentiful.

Crocus vernus, Willd.—Abundant in a field at the back of Leyland Church.

- Dipeacus Fullonum, Linn.—One or two specimens of this plant have come up, and flourished for a few years past, in the garden at the back of the Red Lion Inn, near Walton-le-Dale ('hurch.
- Parietaria officinalis, Linn.-At Dinckley Hall, near Ribchester.

Potamogeton rufescens, Schrad.-Pit by Pope Lane.

----- crispus, Linn. -- Pit by the River Lostock, between Croston Railway Station and Bank Bridge.

----- perfoliatus, Linn.-At Bank Bridge.

Myosotis rersicolor, Lehm .- Fields, Rufford, plentiful.

- Echium rulgare, Linn.—Top of Clitheroe Castle tower, a single plant, 1860.
- Primula farinosa, Linn.—Pendle Hill, by the side of a stream near Pendleton Hall, in abundance; Railway side between Clitheroe and Whalley.
- **Concolculus sepium**, Linn.—The rose or pink coloured variety of this plant grows in a hedge between Freckleton and the Ribble, in considerable quantities.
- Claytonia perfoliata, Donn.—Naturalized in the grounds belonging to the Inn at Whittle Springs, near Chorley.

• See vol. x, p. 143. Vol. xii, p. 127

- Verbascum Thapsus, Linn.—By the road side from Samlesbury Church to the Lower Hall, a single specimen, 1860.
- Chenopodium Bonus Henricus, Linn. Between Dinckley Hall and the Ribble, plentiful.
- Myrrhis odorata, Scop.—Ribble bank, near Darwen mouth, 1861; bank between the tram-road and Walton Hall.
- Sium angustifolium, Linn.—Ditch near Lytham, by Ribble bank, abundant.
- Sium inundatum, Wigg.—Pit on the east side of Ribbleton Moor, abundant; ditches between Croston Moss and Bank Bridge, abundant.
- Sison Amomum, Linn.—This plant is erroneously included in part I. I am not aware that it has been found in this district.
- *Enanthe pimpinelloides*, Linn.—This plant is stated in part I. to grow in marshes between the Naze Point and Lytham, abundantly. This is an error, the plant in question is certainly not *E. pimpinelloides*, but, I believe, on further investigation will prove to be either *E. peucedanifolia*, Poll.—or *E. Lachenalü*, Gmel. probably the latter.
  - ——— Phellandrium, Lam.—Ditches, Croston Moss.
- Meum athamanticum, Jacq.—In a pasture field at Piethorn, in Butterworth, very abundant. This may be considered out of place in a paper treating of the botany of Preston and its neighbourhood, but I mention it because I believe the exact locality has not been named in any work before. Mr. Grindon, in his Flora of Manchester, mentions the plant as growing on "Whiteley Dean, a "moor near Milnrow."
- Bupleurum rotundifolium, Linn.—Mr. George Ward, who is stated in Part II. to have found this plant in the neighbourhood of Feniscowles, informs me that he found some specimens of it many years ago in a field between the Boar's Head, in Hoghton, and Quaker Brook.
- Statice reticulata, Hook.—This plant is incorrectly included in Part II. There are two kinds of Statice often growing

together on the marshes by the Wyre, one much larger and more luxuriant than the other, and I cannot quite satisfy myself as to the species of the smaller kind, but it is not *reticulata*. It may probably be *S. birernosa*, G. E. Sm.—but it requires further investigation.

- Convallaria multiflora, Linn.—I saw this plant growing in a hedge near Milnrow, in June, 1861, although, like the Meum, out of place in this list, I mention the fact because I believe the above habitat has never been recorded. The plant had every appearance of being wild. I was informed that it grew in a wood in the same neighbourhood a few years since, but is now lost there.
  - *majalis*, Linn.—I believe this plant has been found either in a ravine near the Heald, Barnacre, or in a plantation in Calder Vale, which is in the same neighbourhood.
- Maianthemum bifolium, D. C.—This plant (under the name of Monophyllon, or One Blade), Gerarde says "groweth " in Lancashire, in Dingley Wood, six miles from " Preston, in Aundernesse; and in Harwood neere to " Blackburne likewise." By Dingley I presume is meant Dinckley, near Ribchester, which, however, is ten or twelve miles from Preston. The old botanist is frequently incorrect in his distances. I have not yet had an opportunity of scarching for this plant.
- Rumex Hydrolapathum, Huds. —I have found this plant near Bank Bridge, the habitat mentioned by Mr. H. Scott, Part II.
- Alisma ranunculoides, Linn.—Pit at Liscoe, near Rawcliffe, very abundant.
- Chlora perfoliata, Linn.—Fields about Green Lane, Roach Bridge, abundant. A fine specimen between Ribble bank and Freekleton, August, 1861.
- Saxifraga tridactylites, Linn.—Beach at Lytham, between the Windmill and the Custom House, very abundant.
- Agrostemma Githayo, Linn. Corn fields about Croston Moss, frequent.

Meconopsis Cambrica, Vig.—Lancashire side of the Hodder, near Whitewell, but introduced.

- Trollius Europæus, Linn.-Marshy place near the Spa Well, Clitheroe.
- Aquilegia vulgaris, Linn.-Wood between Sale Weel and Dinckley Hall.
- Anemone Pulsatilla, Linn.-In the Phytologist for January, 1862, there is an article entitled "Catalogue of plants " cultivated by Collinson," who was a celebrated botanist and florist living at Mill Hill, Hendon, Middlesex, about the middle of the last Century. With reference to the A. Pulsatilla, the following note is extracted from the Catalogue-" Mr. Knowlton found millions of Pulsatillas "growing everywhere in the grass, from a mile south of "Lancaster, on the way to Little Purton." This Mr. Knowlton, the Phytologist informs us, was a zealous botanist and gardener to the Earl of Burlington. He would therefore be probably acquainted with the neighbourhood of Lancaster, and could not have mistaken any other plant for A. Pulsatilla. I never before heard of this fine plant having been found in this county, and have not yet been able even to learn the whereabouts of " Little Purton."
- Lamium maculatum, Linn.—Hedge bank near Ribchester Bridge; hedge bank between Longridge and Ribchester Workhouse; hedge bank near Bamber Bridge, by the Leyland road, probably introduced in each of the above localities.

Ballota nigra, Linn.-Hedges about Rufford.

- Calamintha Clinopodium, Benth.—Sand hills at Lytham, frequent.
- Thymus Acinos, Linn.—Mentioned in Part I. as growing near Clitheroe, but I believe incorrectly. I believe the plant I took to be T. Acinos is only a variety of T. Serpyllum, but the matter requires further investigation.
- Bartsia viscosa, Linn.—Ditch at the edge of the sand hills at Lytham, next to the cultivated ground, plentiful.

- Lathrae squamaria.—In a wood called Whalley Banks, on the bank of the Calder, about a mile from Whalley, nearly opposite to Moreton Hall. Gerarde says of this plant "It groweth likewise neero Harwood, in "Lancashire, a mile from Whanley, in a wood called "Talbot Banke." The locality indicated by Gerarde is no doubt the same as that in which the plant now grows, "Whanley" being evidently a misprint for Whalley, and no wood called Talbot Bank being now known in the neighbourhood. Mr. George Ward found the plant in Whalley Banks Wood, about 35 years since.
- Draba verna, Linn.-Very abundant on the beach at Lytham, between the Windmill and the Custom House.
- Camelina satirz, Crantz.—Marsh End, Ashton, on a piece of uncultivated ground, 1860. No doubt introduced, but in what manner it is difficult to say.
- Teesdalia nudicaulis, Br.—Sandy corn field between Rufford and Martin Mere very abundant.
- Geranium columbinum, Linn.—Dry bank near Rufford; by a bye road to Martin Mere.
  - lucidum, Linn.—Old wall nearly opposite Hoghton Church; very abundant, as a weed, in a garden at Withy Trees, Bamber Bridge.
- Malra moschata, Linn.-Wyre bank, near the entrance to Rawcliffe Hall.

Corydalis lutea, D. C.-Wall at Worston, near Clitheroe.

- Errum hirsutum, Linn.-Banks, Croston Moss, plentiful.
- Ornithopus perpusillus, Linn.—By the road from Pleasington Old Hall to the bridge over the Darwen, abundant.
- Hypericum humifusum, Linn.—Bank by footpath between Fulwood Barracks and Sion Hill, plentiful.
- Tragopogon porrifolius, Linn.—Gerarde says this plant "Growes not wild in England that I could ever see "or heare of, except in Lancashire upon the banks of "the River Calder, neere unto my Lady Heskith's house, "two miles from Whawley." I believe Martholme Hall is the house referred to by Gerarde, but I cannot say

whether or not T. porrifolius is still to be found in its neighbourhood.

- Cichorium Intybus, Linn.—Near the Old Hall, Winmarleigh, Mr. James Pearson of Rochdale.
- Serratula tinctoria, Linn.—Hedge bank by a footpath leading from Farington Church towards Cuerden Park, near the latter place.
- Carduus nutans, Linn.---By the side of the tram-road, and in many other places about Preston.
- Senecio Saracenicus, Linn.—Mr. George Ward informs me that this plant grows on the Ribble bank, near Balderstone Hall, and in several other places in that neighbourhood.
- Epipactis latifolia, Sw.-Sand hills near Lytham.
- Carex cæspitosa, Linn.—By the Canal at Preston; marshes near Preston, frequent.
  - ----- fulva, Gooden.--Pasture, through which a footpath passes, between the road and Cuerdale Wood.
- Bryonia dioica, Linn.—This plant does not now grow at Wild Boar, St. Michaels, as stated in Part II.
- Tamus communis, Linn.-Holme Lane, Wharles.
- Myriophyllum spicatum, Linn.—Canal at Preston; ditches between Croston Moss and Bank Bridge; Canal at Bank Bridge; Mill Pool at Grimsargh very plentiful.
  - *croston, very abundant*; pit by the River Lostock, between Croston Station and Bank Bridge; ditches between Croston Moss and Bank Bridge.

Hydrocharis morsus ranæ, Linn.-Bank Bridge.

- Grammitis Ceterach, Swartz. Wall at Worston, near Clitheroe, and on other walls in that neighbourhood occasionally.
- Aspidium Oreopteris, Swartz.-Nab Wood near Chorley.
- Botrychium Lunaria, Swartz. School Brow in Pleasington, near Stone Quarry.

# ON THE PROTECTION OF WOOD AND IRON SHIPS TO PREVENT FOULING.

# By N. Mercer, F.C.S.

READ 16TH JANUARY, 1862.

It is always both interesting and instructive to refer back to the early history of any art, and trace it through the various stages of its progress; and the art of protecting ships from the ravages of the sea worm and the adhesion of marine life is no exception to the rule. For Liverpool this subject has a special interest, and I anticipate being able to show you that it is also one of considerable importance. While also it is a subject which must have engaged the attention of the earliest navigators, its importance has been considerably increased within the last twenty years, in consequence of the extensive employment of iron ships, all the submerged portions of which it is necessary to prevent from coming into contact with sea water. The coatings employed for this purpose, however, were not, until lately, at all successful in preventing very extensive fouling and corrosion.

Although the sheathing of the present day is a comparatively modern invention, evidence is not wanting to show that attempts were made at a very early period to protect ships from fouling and the ravages of sea worms.

The first sheathing used was probably the hides of animals covered with pitch; but it is also on record that sheet lead was employed at a very early period. An old writer<sup>®</sup> refers to the raising of a ship of the Emperor Trajan, after having been

• Leo Beptisti Alberd.

sunk and neglected for 1300 years, when he observed that the pine and cypress of it had lasted most remarkably, being coated with pitch, sheets of lead being fastened over all with small copper nails.

The earliest subsequent period when I have been able to find any reference to the protecting of ships' bottoms is 1625, when a patent was granted to a Mr. Beale for an uninflammable compound to preserve ships from barnacles, wildfire &c. The nature of the article is not specified; for in those days and, indeed, till a much later period, patents were granted without any necessity of defining the nature or composition of the article thus protected. Mr. Beale says that it is "a new "invention, by him lately found out, by which ships may be "preserved in fight at sea from burning by wildfire, and also "how ships on long voyages may, without sheathing, be pre-"served from hurt by the sea worm or barnacle, whereby many "ships of great value are oftentime utterly destroyed." He also undertakes to pay His Majesty forty shillings per annum for fourteen years, and the King, in return, informs all his loving subjects that no one else shall make the said material, under pain of his heavy indignation, &c.; though how his subjects were to know when they were infringing such a patent is not specified.

Forty years afterwards a patent was obtained by Sir Philip Howard and Sir Francis Watson, for a similar invention and, from a transfer of this patent having been made to a company for carrying it out, we learn that it was for the use of milled lead. We have shown that this article was used at a much earlier period, but it had probably been discontinued, in consequence of the great expense entailed in its manufacture and application; for that the cost was burdensome we gather from the fact that in 1725 a mixture was introduced to keep the worms from eating through the planks, and as a recommendation it is stated that it had been proved in the ship Magdalena,

bound to St. Domingo, "which ship came home free from "worm holes, although the said coast is so much troubled "with worms, that in twenty-four hours these vermin will so "far penetrate into the bottom of a vessel as to make it "unsorviceable and entirely useless, if not sheathed with lead, "the usual custom to preserve the same, the charge for which "is forty times more, and not so durable." What this composition was I have not been able to learn; but later it was proposed to coat ships with tar, and then to strew it with ground glass. The operation was to be completed by covering the whole with sheathing boards in the usual way, through which, says the sanguine projector, " the worm may pass, but " in the ground glass he will, it is apprehended, moet with his " me plus ultra."

But even at this time the value of copper sheathing was not unknown, for Mr. Pepys, Secretary to the Admiralty in the reign of Charles II, suggested the great importance of using this metal, and says, somewhat despairingly, "I wish it were "tried on one ship." The experiment, however, as far as the navy was concerned, was delayed for nearly a century, and when it was tried, although answering beyond expectation, the prejudice against innovation was so strong, that in Admiral Keppel's fleet, in 1788, there was only one coppered ship. By the end of the century, however, its superiority over every other sheathing previously adopted was so self-evident, that the whole British navy was coppered. In this, as in many other respects, the merchant service was many years in advance of the navy; and there is no doubt that copper sheathing had then been in use a considerable time.

Efficient though it was, there was one drawback, viz.—the great expense entailed, not only in the first cost, but also in the frequent renewal required. The value of the metal alone on a 120-gun ship was more than £2,000, and fresh sheathing was required every four or five years. Nor was this all; there

was found to be very great difference in the power of copper to resist the action of salt water. The general belief was that sea water had no action upon pure copper, and that the rapid decay of sheathing on certain ships was owing to its impurity. Chemical analysis, however, did not support such an opinion; for sheathing which had lasted remarkably well was found to be alloyed, while other sheathing which was nearly destroyed in four years was found to be made of very pure copper.

In 1823 Government determined to provide, if possible, a remedy for the large expenditure necessary to maintain their ships efficiently sheathed, and Sir Humphrey Davy was requested to undertake an investigation into the cause of the rapid decay of copper sheathing, and the best means of preventing it. He made many experiments and, by applying his electro-chemical theory to the solution of the question, he successfully explained the reasons why copper was acted upon by sea water, and suggested a remedy for the evil complained of. When he considered that copper is but weakly positive in the electro-chemical scale, and that it can only be acted on when in a positive state, it occurred to him that by rendering it slightly negative, the corroding action of sea water would be prevented. The plan he devised was extremely simple, being nothing more than to attach to different parts of the sheathing strips of iron or zinc, which, acting as the positive pole of a galvanic arrangement, effectually prevented the corrosion of the copper.

Practice, however, does not always bear out theory, and the results obtained from experiments on a small scale are often found to be fallacious, from causes which are only noticed when the operations are extended. So it was with Davy's experiments; they were tried in a tank of salt water and were eminently successful; but, when the vessels were protected according to his plan, it was evident to all on board, from their dull sailing, that the bottoms had become very foul, and on

being examined, it was found that the copper was completely covered with sea weed, shell fish of various kinds, and myriads of small marine insects. Upon their removal, however, it was found, on weighing the sheets, that the copper had suffered little or no loss, thus proving that the principle of protection was true, although its practical application had failed, from circumstances which could only be ascertained by experience. So serious, however, was the foulness of the ships thus protected, that Government was obliged to order the discontinuance of the protectors, and return to the old plan, which they have adhered to to this day.\*

Up to this period it had always been supposed that the value of copper sheathing depended upon the poisonous salts formed on its surface by the action of sea water, but it was now seen that it was the solution, or wearing away of the metal, which, by keeping the surface always smooth and clean, prevented the adhesion of foreign matter.

It has frequently been noticed that our lightships outside the port, when docked for repairs, are extremely foul, and this is usually attributed to their being stationary; but I believe that their extreme foulness arises from their being moored with very massive cables, which, as they enter the ship but a few feet above the sheathing, act through the moist wood like Sir H. Davy's protectors and prevent the copper from dissolving.

From 1823 to 1932 few, if any, improvements were introduced into the material used for ships' sheathing, but in that year Mr. Muntz took out his patent for an alloy of copper and zine—the yellow metal of the present day. This alloy consists of any propertions of the two metals, between 50 per cent, of zine, with 50 per cent, of copper, and 37 per cent, of zine, with 63 per cent, of copper. The latter proportion of copper was found in practice to be the best, as when furthe

· Paris's Life of Sir H. Davy.

reduced, not only were the sheets difficult to roll, but the zinc was liable to be separately acted on, when of course the efficiency of the sheathing was materially diminished.

Yellow metal has been singularly successful in superseding sheathing made of copper only, as it not only costs less in the first instance, but wears longer and is very efficient.

For many years yellow metal has been manufactured by all the copper smelters, and everywhere, except in the navy, has superseded the old copper sheathing. This used formerly to lose from 40 to 45 per cent. in weight in two East India voyages, while the yellow metal sheathing loses only about 33 per cent. under the same circumstances. It may fairly be said that good yellow metal has an advantage over good copper of from 15 to 20 per cent., independently of the difference in price, which has given during the last ten years from 15 to 20 per cent. more. The price is  $1\frac{1}{2}d$ .  $\frac{1}{2}$  be the less than copper, and the specific gravity, or relative weight,  $7\frac{1}{2}$  per cent. less.

The actual cost per annum of sheathing a vessel of from 400 to 500 tons, may be set down, under ordinary circumstances, at not less than  $\pounds 120$ .

There is no doubt that the presence of sulphuretted hydrogen in water would act very injuriously upon yellow metal; and I believe the immediate circumstance which caused the manufacturers to withdraw a guarantee, which they gave during several years, was the rapid corrosion of a quantity which had lain for some time in the London docks. That it wears away in many instances, from causes over which they have little control, is undoubted. If it were owing to the quality of metal, why should a small number of sheets, made from the same charge and rolled under the same circumstances, be affected, and the remainder be perfectly sound? Why again should the metal placed on one ship be acted upon, while portions of the same charge, placed on other bottoms, are not dissolved and worn away?

Sometimes, in consequence of the sheets not having been properly cleaned during manufacture, a portion of oxide may be pressed into the body of the metal and, a voltaic effect being produced when the sheathing is immersed, the sheets affected are rendered more liable to wear. Very little is required to form a voltaic circle in a sheet of copper; in fact the slight difference between the composition of the nails and sheets is sufficient, and the plates are always found most worn in the immediate neighbourhood of the nails. At times, no doubt, the wear of the sheathing is owing to the ship itself. A weak vessel, or one built with green timber, especially oak. wears metal rapidly. In the first case, the vessel strains and works, wrinkles and breaks the sheathing, and the action of the current on the irregularities of the surface soon cuts through the metal. In the latter case, the sap from the unseasoned oak is a very powerful acid, and would, without doubt, increase the wear of the copper.

A few years since a new description of yellow metal was introduced, the peculiarity of which was that a little phosphorus was added to the metal during the process of melting, and it was guaranteed as being 25 per cent. more durable than the ordinary sheathing; but in this case, as in that of Sir H. Davy's protectors, theory did not coincide with experience, which has shown that little or no advantage was gained. At the same time it must be observed, that from some experiments in H. M. dockyards, although phosphorus did not increase the durability of yellow metal, it had a decided protective effect on pure copper.

There is an expression very frequently seen in advertisements of ships for sale—viz.; that they are "coppered and "copper fastened." This recommendation is to distinguish them from ships which, although they may be coppered, have their bolts made of iron, when, unless precautions are taken to prevent not merely contact, but the presence of any sub-

stance saturated with salt water between the copper and the iron, the bolts will all very quickly be destroyed. To remedy this, it is now usual to cover all the iron portion with gutta percha or some other non-conductor, to prevent any galvanic action; but, with all these precautions, the bolts are frequently found to have been seriously injured, even though there has been no copper within several feet of them—the moisture of the timber being sufficient to form a galvanic circuit.

For iron-bolted ships, however, zinc sheathing is in great request, as there is no action of any consequence between the zinc and the iron—and a very durable and economical sheathing zinc is; but, unfortunately, it does not possess the power of throwing off barnacles and sea-weed in an efficient manner. Ships sometimes come in clean, but as a rule they are very foul, and it would be little used were it not for the injurions effects of copper sheathing upon iron fastenings.

When iron was first suggested for ship building, many objections were foreseen, but no one anticipated any difficulty from their fouling. Red lead paint was considered quite sufficient to keep them clean, but it was soon found to be totally inadequate for sea voyages, and within the last few years has also been proved to have a very injurious action upon the iron.

My attention was first called to the subject by Mr. John McInnes; and, after examining a large number of iron ships, when docked for repairs, I found abundant evidence of the injurious action of red lead upon iron after prolonged immersion in sea water. The subject being important to the shipping interest, a detailed report of the result of my observations appeared in the City Article of the *Times* of the 12th May, 1859.

On examining the bottom of an iron ship which has been coated with red lead, the first point which attracts attention is the great extent to which the iron has been corroded, patches of rust protruding through the paint, and being



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thickly spread over the unscraped portions of the bottom. On a closer inspection, the red lead coating is found to be covered with blisters, from each of which, on being opened, a clear fluid escapes, leaving exposed on the surface of the iron a number of brilliantly-shining crystals of metallic lead. To this there is no exception—every blister yielding its modicum of lead crystals; and that they are formed at the expense of the iron is evident from the corroded and pitted appearance of the plate beneath every blister in the paint.

The novel condition in which lead is seen under these circumstances is extremely interesting in a scientific point of view. It affords a most striking illustration of the production in a crystalline form of a metal not often seen in that condition, and is a proof of the slowness and regularity of the action by which the deposit has been effected.

Each blister is in fact a galvania batt ry in miniature, and as, wherever there is electrical, there must also be chemical action, we are at no loss to account for the corresion of the nen witt hannediately surrounds these innanterable metallic points. As long as any red lead r mains, that can be brought within the influence of these little voltaic circles, it will most certainly by decomposed, and the iron not only acted upon in an equivalent ratio, but a condition is brought about which keeps up a voltaic action at the expense of the iron. The installie lead on a formed is no larger acted upon, but, as the n-entive pole of the battery, maintains its Frightness by the very destruction of the iron it is aiding to effect. And the fluid to which I referred as flowing from the blisters has a very close connection with the formation of the leaders) tills, as it is a solution of chloride of iron, produced by the combination of the chlorine of the sea water with the iron of the ship, and, though we need not be surprised at its presence under such circumstances, it has never, that I am aware of, been before pointed out that the "sweat," so well known to every person interested in iron ships, is not, as is generally supposed, salt water, but a solution of chloride of iron. That this "sweat" is due, in a great degree, to the use of red lead paint in immediate contact with iron I am well convinced; and, from its chemical properties, there must be great difficulty in preventing any composition with which a "sweating" ship is afterwards coated from being thrown off.

Soon after the first publication of my remarks on the action of red lead on iron in sea water, I received several communications confirming their correctness, and, within the last few months, I have received another from M. Jouvin, Professor of Chemistry in the School of Naval Medicine, Rochefort, in which he says, "Permit me to acknowledge the "entire justice of your assertions; there is not a word which "does not agree entirely with my proofs, by numerous analyses "which I have made of the coagulations of oxide of iron, and "of the liquid in the blisters, which I gathered on two splen-"did boats of the Brazil line, the *Guienne* and the *Béarn*. "In the interior of the blisters I have, like you, sir, found "many crystals of metallic lead; also, after scraping the "vessels' sides, I passed by places all covered with them."

The question therefore arises--seeing the plans hitherto adopted have been inefficient, what is the best method of protecting the submerged portions of iron ships?

We at once naturally turn to the means which have been found so successful in protecting wooden ships. But I am sure I need not say one word on the disastrous effects which would immediately ensue if a copper sheathed iron ship were sent to sea. Yet an incredible number of propositions have been made, and patents have actually been taken out and applied for, to sheathe iron ships with copper. One projector would coat them by electricity, floating them in a dock filled with a solution of sulphate of copper, whereby the iron would be covered with an equable coating of metallic copper.

Another, apparently envious of this great idea, proposes to rub the surfaces of the iron plates with metallic copper, and thus, by means of friction under great pressure, to cause a surface of copper to adhere. But, most surprising of all, Mr. M<sup>o</sup>Connell, one of the head engineers of the London and North Western Railway, who is always recognised as a man of superior abilities, actually applied, in 1852, for a patent to coat iron with copper, to prevent, to use his own words, "decay, chemical or otherwise, of the iron so protected and "covered."

Many other equally absurd proposals have been made—the great idea, after copper, being, only coat a ship with some water-proof substance which will keep the iron from contact with the water, and your object is at once attained. Accordingly, we have proposals to use, as coatings, gutta-percha, india-rubber, marine glue, asphalte, and, above all others, glass. One man proposes to make a mixture of ground glass, borax, soda or other ingredients which, when fused and spread over the iron sheets, will protect them with a coating of glass enamel. If a waterproof coating would answer the purpose, there would be no difficulty; or if simply a poisonous coating was wanted, the difficulty would also be easily overcome; but what is wanted is a surface approaching as nearly as possible in its nature and properties to the sheathing found so successful in wooden ships.

The most common articles in use after red lead are oxide of iron and zine paints, coal tar, or a mixture of tallow with black lead or yellow ochre. A composition, manufactured by Mesars. Peacock and Buchan, was some time since very popular, and is still, I believe, a good deal used in the South of England. It is a chromate of zine paint, but I am given to understand that in consequence of its having little body, it is always usual to paint the ship in the first instance with red lead. Coal tar is a very objectionable substance; the tar

acids always present cannot fail to attack the iron, and it is also very questionable whether its carbon does not act as the negative pole of a battery, and produce a galvanic circuit. The majority of iron ships sailing from Liverpool are coated with an insoluble soap of copper, patented by Mr. MeInnes, and this is, I believe, the most successful composition yet applied. When immersed in the water it presents a smooth slippery surface, to which it is hardly possible for barnacles and sea-weed to adhere more than they do to the ordinary copper sheathing of a wooden ship. But it will no doubt be urged, how is it possible to coat iron ships with a copper compound without injuriously affecting the plates? In the first place, the hull is always well coated with a non-conducting varnish, so that the cupreous soap shall never come into direct contact with the iron; and in the second place, an organic compound of copper is far more difficult to decompose than an ordinary salt, such, for instance, as the sulphate of copper, and, until the copper is reduced to the metallic state, no injurious action can take place. I have examined a number of ships coated with this composition, but have never been able to detect any deposits of metallic copper, and I believe it approaches nearer to perfection than any composition vet introduced.

In the Cornhill Magazine for this month, in an article on our iron steamers, there is a remark made by the writer on the drawbacks to the use of iron for ships having to go long voyages. He says, "The fouling of the submerged portion "is the great difficulty to overcome—but that is no real diffi-"culty. We have but to deal with the bottoms of iron ships "as we have already dealt with their sides, and coat them with "a suitable resisting material. We have had to apply iron "to their sides to keep out shell and shot; let us similarly "apply wood to their bottoms, and coat it with copper or

"mixed metal, to keep it clean, just as we coat the bottoms of "wooden ships. We really hope that henceforth we shall "hear no more of the unfitness of iron ships for foreign "service on this ground, seeing that they can be made fit by "such a ready process as we have pointed out.""

Now the writer of this article is evidently in total ignorance of the effect of bringing metallic copper within several feet of iron, unless there is a perfectly non-conducting substance intervening; and in this lies the difficulty. No amount of wood planking will prevent moisture from getting between the sheathing and iron of the ship ; indeed I was struck by a paragraph in the Times the other day, bearing upon this point. It was remarked that a difficulty in the use of armour plates had presented itself, which it appeared almost impossible to overcome, viz.-to attach them in such a way as to prevent water from penetrating between them and the hull of the ship. The most successful attempt to apply copper sheathing to iron ships has been patented by Mr. Daft, and consists in firmly attaching to the copper, sheets of vulcanized india-rubber, a perfect non-conductor ; but here again arises a difficulty which has yet to be overcome. How can these sheets be attached to the hull without the use of metal bolts and fastenings, and at the same time prevent moisture from permeating between the joinings ? Mr. Muntz has, I believe, taken up the patent, but it is totally inoperative, for want of a method of perfect insulation and attachment.

Taking all circumstances into consideration, I do not think inventors are looking in the right direction, when they endeavour to discover some method of successfully sheathing iron with copper. Supposing all the mechanical and chemical difficulties to be overcome, there still remains the important

• Cornhill Magazine, No. 24, p. 719.

question of expense. Shipowners would soon see, that if iron ships were first to be covered with wood or india-rubber, and then sheathed with copper, they might as well build wooden ships at once, for all the advantages of iron would be neutralized.

The question is still engaging my attention, and perhaps at some future period I may have another communication to make to the Society on the subject.

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# THE HUMAN RACE: ITS ORIGIN, HISTORY AND EARLIEST FORMS OF CIVILISATION.

By John Newton, M.R.C.S.

### (READ OTH MARCH, 1862.)

CHRISTIANITY, in its all-embracing sympathies, has given a new idea to our age. The favoured nations of old, whose written records remain to our time—the Jew, the Greek, the Roman—looked upon the swarming races of men around them as outer barbarians with whom they had nothing in common, and for whose manners, arts and ancient story they cared little. Again, the art of writing, without which anything like history becomes almost an impossibility, appears to have been comparatively a modern invention, the knowledge of which was long confined to certain races only. And thus it has happened that the great story of humanity, the History of Human Civilisation in its broadest sense, remains to be written; some few lines of light, growing fainter and fainter as they recede towards the more distant ages, serving but to render the surrounding darkness more apparent.

There are two ways, however, in which something may be done towards reconstructing those early unhistoric chapters of man's history. First, we may study all the existing conditions of so-called savage life, which will furnish us with innumerable grades of social development. The materials are abundant enough, though they have never yet been carefully collected and arranged to illustrate this great subject. For, when we look abroad over the face of the earth, and examine the condition of our fellow-men, we find them occupying every grade between our own advanced culture and the lowest possible form of humanity that appears just capable of holding on to life, snatching a miserable subsistence from the spontaneous bounties of nature. But, to make any use of this grand field for observation, we must take for granted that all mankind sprang from one common stock. Luttrell "could not bear the "sight of monkeys because they reminded him of poor relations." And, in looking at the miserable aborigines of New Holland or of Tierra del Fuego, we are conscious of the great gulf that separates us, and feel very little inclined to shake hands across it and acknowledge in one of them a man and a brother. Accordingly, we have had many a theory put forth to account for the difference. Lord Monboddo thought that our first parents must have been a species of very superior apes-a shade above the gorilla perhaps-that, after long lapse of ages and progressive development, they lost their tails, then got to walk always erect and afterwards changed their hideous chatter for human speech. He considered the wretched aborigines as arrested in their development. Darwin has more lately improved on this development theory, and would trace the origin of man still further backwarks, perhaps to some primæval fungus. Professor Huxley also appears to be enamoured of the monkey hypothesis; and, in a lecture delivered lately at the London Royal Institution, told his audience, with much complacency, "that the difference between the "capacity of the skull in the highest, as contrasted with the "lowest races of men, is greater than between the lowest man "and the highest ape." All this is but scientific trifling. Distinct Species are not transmutable though Races may be. The highest ape will never develop itself into a lower man, and the Gorilla will never lecture on Mr. Spurgeon. By species, naturalists mean an assemblage of individuals, more or less resembling one another, which may have descended from a single primitive pair, by an uninterrupted succession of families. Such species are unchangeable. They have never varied since the beginning, and there can be no transition from one species to another. Now, of course, we may have many slight differences amongst members of the same species. These



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constitute carieties. And these differences, transmitted from generation to generation, constitute race. The formation of races seems to depend mainly on the rarying conditions of existence in which individuals of the same species may be placed; as these vary infinitely so they necessitate varieties in the species; for if individual forms were incapable of bending to the changing circumstances by which they are surrounded to such an extent as to form Varieties, they would die out, and the species would cease to exist. Now the human species has pre-eminently this capability of infinite adaptation. The Jews long settled in Malabar have become nearly black, and their hair is woolly; in Arabia, they are olive-tinted; in England, white. We, in Liverpool, have excellent opportunities for observing the effect of climate and other altered conditions of existence on the individual. The friend who left us for the United States but ten or twelve years ago, returns an altered man. We fail to recognise him. Voice, frame, style of hair, all are altered, and approximate to the well-known "Yankee" type. This striking illustration has not escaped M. de Quatrefages, who, in his excellent work, "Unite de "l'Espèce Humaine," describes the Anglo-Saxon as passing into the Indian type in the United States. "Already," he says, "in the second generation, these traits of the Indian " type are visible, which cause him to resemble the Iroquois " and the Cherokee Indians. The skin becomes dry as leather, "loses its warm tint, and the rosy colour of the cheeks, which " in the man is replaced by a lemon-yellow, and in the woman "by a faded pallor. The head becomes pointed, and covered " with long, sleek, dark-coloured hair, the neck elongates, there " is a great development of the cheek-bones and muscles of the " jaws, which become massive ; the eyes are dark, deeply set. " the glance is piercing and savage. The arm-bones become " greatly clongsted, the fingers long, and the nails pointed ; so " that a special form of glove is manufactured for the Yankee

"market. The figure of the woman approximates more to "that of the man. It is less feminine, and the hips are nar-"row. We have softened down some of the harsher features "in this description." (?) Doubtless, De Quatrefages will consider the present fratricidal war in which our American cousins are engaged, as a still further proof of approximation to the Indian type !

Again, as proofs of the oneness of the human species, it is well known that marriages among its varied races-however unlike-are fruitful, and produce a fruitful cross race. Once more, if we take a child of even the most degraded races from his surroundings, and bring him within the circle of our own civilisation, he will soon learn our language, attain to ideas of religion and acquire some smattering of our arts. Also, many races of men, isolated by geographical or other causes from the rest of the world, have, through long periods of time, worked out for themselves special forms of civilization, as the modern Chinese and the ancient Mexicans. Yet these always resemble, in very many points, other national forms of culture ; as though the human element, the one blood, ran through all. Our little girls who delight in their dolls, find, on looking into the cases at Mayer's museum, that the Anglo-Saxon, the Roman, and the Egyptian children liked their dolls, too ; our ladies, that women in all ages and climes have, like themselves, delighted in personal adornment; and our men, that a common type may be seen among the earliest weapons of all nations, whether of flint, bronze or iron-whether gathered from some ancient Indian grave in North America, a British barrow or a Scandinavian tumulus on the steppes of Tartary. These few hints might be expanded and multiplied greatly; but enough, perhaps, has been said to shew that human knowledge has, so far, rather confirmed the saying of the apostle-"God hath made of one blood all nations of men for to dwell " on all the face of the earth."

If, then, the human race all sprang from one common stock. where was its starting point? Man, without arms or arts, must have been the most helpless of animals, since he alone is thrust naked into the world, unprovided with one single weapon of defence. His first home, then, must have been some sunny clime near the tropics,-where bleak winter is unknown-where the trees are never without leaves or fruitwhere shelter and clothing, storehouse and barn, would be little needed-where the earth yielded abundant increase without tillage, and where the sheep and the goat offered themselves as passive subjects for man. Such, then, must have been the cradle-ground of the human race; until-their faculties strengthened by exercise and their experience of natural things enlarged-they were fitted to go forth into new climes and strange regions, to commence the colonization of the world. To this conclusion, indeed, the whole stream of ancient history and tradition tends; whilst the recent study of comparative grammar and antiquities has furnished overwhelming proofs that in central Asia, by the banks of the Euphrates or of the Indus, the earliest forms of civilisation, of language and the arts took their rise.

But how did man shape himself to his let ? Did he grasp at once the station for which he was destined, or did he attain to it by slow and painful endeavour? I think we may realize the earlier stages through which man must have passed, by studying the varied phases of so-called savage life; that which was but a temporary condition of some races continuing longer permanent with others. Antiquaries, following Lucretius,\* have usually speken of a stone age as being the most primitive, but the fashioning of stones and flints to form a hundred useful tools and weapons-as hatchets, wedges, pikes,

\* Arma A stoppe to anose ingues, dentesque, formut, Et lapries, et dem sylvarum fragmita rama, Posterius ferri vis est la cospie a perte. Et profearies erat quancferri el participation.

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arrow-heads, hammers, fishing-hooks-demands much dexterity, and bespeaks a certain advanced cultivation. If we turn to our earlier voyagers, as Dampier, Cook and Bougainville, we shall find half-a-dozen grades below this. Captain Cook, describing the aborigines of Van Diemen's Land in 1771, says, the natives whom he saw were quite unclad, except with a piece of Kangaroo skin, just as stripped from the animal, which, if scanty, they hung on that side their bodies towards which the wind blew. Their only weapon was a hard, straight stick, sharpened at the end; their only cutting instrument, a shell. Their houses were holes in the ground, covered with sticks, or in hollow trees; their principal food small birds and shell-fish, heaps of shells being found about their rude hovels. Hatchets and knives they received as presents, yet without manifesting the least appearance of satisfaction. Even bread, and large fish caught in their own bays, they rejected as unknown. Yet even these wretched beings showed some traits of culture, for they understood the art of procuring fire by the rubbing of drv sticks. But at New Zealand he found a far higher civilisation. The natives were most prepossessing in person; they were expert at barter, and understood at once the value of the iron knives, fishhooks and hatchets offered them. They were skilful fishermen, and made capital nets They formed settlements under chiefs, each village surrounded by a stout palisade, the houses having conical roofs, well wattled to keep out wind and rain. They had hatchets and clubs formed of a very hard stone, elaborately polished; they built boats which they painted, and carved figures on the prows; their richer dresses were made by weaving, and displayed various patterns ; they were hunters, swineherds and fishermen, but they did not cultivate the soil. Their tools, he says, cost them enormous labour to make, as they were formed by rubbing or striking one stone upon another.

Other races of men have been described, whose habits seem

to reveal to us the first steps in the working of metals; they take some simple and obvious ore, and reduce it by a smelting process so rude that it has evidently been entirely of native growth. Thus, the tribes in equatorial Africa, whom Du Chailla® and Captain Burton+ saw working in iron, were unacquainted with the hammer, but used a stone, pestle fashion, beaten upon another stone for anvil.

Thus, then, among those backward, yet picturesque races, who still linger on the skirts of our advanced civilization, may we gather contemporary materials for studying the successive phases of our unhistoric past; that which is yet an existing condition of one race having passed into the region of antiquities with another.

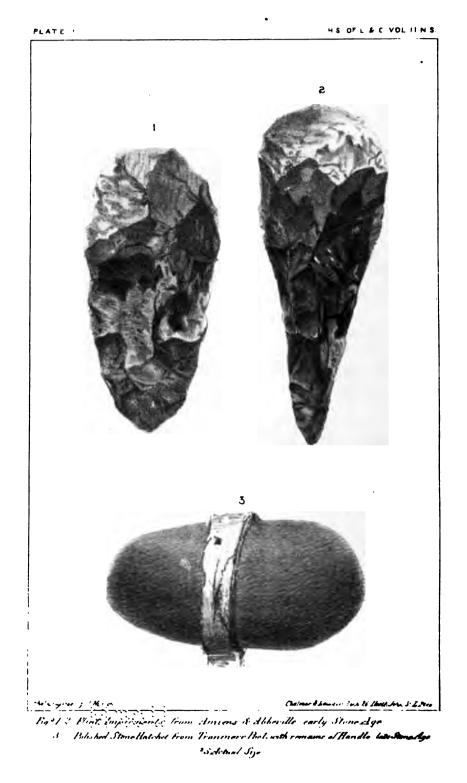
But has that unwritten past left no trace for us? We shall proceed to show that it has-that the earth beneath our feet contains many a layer of curious relics -- successive records of ages which have left no other memorial.

We begin with the researches of M. Boucher de Perthes, a gentleman of fortune, residing at Abbeville, in Normandy, who has laboured more abundantly than any other enquirer in this new field. Dwelling in a district peculiarly rich in antiquities, he has for many years made numerous explorations to unfold its archaeology, and zealously taken advantage of all excavations made for building or other purposes. He gives a very interesting account; of the successive lavers of pottery found at various depths in the neighbourhood of Amiens and Abbeville. First he met with potteries-contemporary or nearly s -- in the recent soil ; in a second layer, old glass and fragments of mediaval art; but (ven this, he says, had an appearance of having been recently disturbed. The third layer, amongst many other remains, contained black unburnt bricks, thicker than the usual Roman brick, and

Explorations and Adventures in 1 quatorial Africa. 1861, p. 91
 The Lake Regions of Central Africa, 1860. Vol. 2, p. 312.
 In his "Antiquites Celliques et Antediluviennes." Paris & Abbeville, 1947 9.

various kinds of pottery, Frankish, Gaulo-Roman and Roman. differing greatly as to the progress they represent in the Ceramic Art. In the fourth layer a different kind of pottery prevails, evidently burnt and made at the wheel and having often some elegance of form. This he calls Gaulish, and considers to have been deposited before the Roman occupation. The fifth layer contained potteries so different in their character, that he could not doubt they were the work of numerous generations, embracing a long series of ages. The sixth layer contains potteries differing considerably amongst themselves, but all evidently made by hand without the wheel. Some, the best preserved, appear to have been baked in the fire, but the most primitive forms are only sun-dried, and fragments of such were found even at depths of from 24 to 28 feet below the surface ! But traces of man were found even lower than this. M. de Perthes gives (op. cit. p. 234), a section of the gravel pits at Menchecourt, near Abbeville. Sixteen distinct layers were cut through before reaching the chalk, all except the highest showing no marks of recent disturbance. He names them as follows .--- 1. Black vegetable 2. Lower vegetable soil mixed with clay. 3. Brown soil. clay. 4. Upper bed of flints, broken and mixed with marl and chalk. 5. Ferruginous loam. 6. Marly clay, mixed with broken flints, often five feet in thickness. 7. Marly sand, containing bones of animals; this bed in some sections was fifteen feet in thickness. 8. Beds of mixed chalk, flint and gravel. 9. White loam. 10. Beds of yellow sand, containing broken shells, marine and fresh water. 11 to 14. Loam and ochreous sand in seams. 15. Beds of grey and white sand, mixed with shells and the bones of extinct mammalia, a layer of from six to ten feet thick. 16. Broken flints and gravel, overlying the chalk. In the 8th and 16th of these layers, at depths of fourteen and thirty feet, the workmen met with flints rudely fashioned by chipping into forms resembling wedges, spear

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heads, hatchets and knives! They were from  $3\frac{1}{2}$  to 9 inches in length, and the oldest deposited were water-worn and crusted with a white deposit of chalk, like the other stones amidst which they lay. Yet in spite of their rude form and aspect, no one who has seen them can doubt that they are as clearly works of human art as a Sheffield whittle. (Pl. II. figs. 1 and 2.) The flint implements in the lowest strata are usually referable to three simple types only, such as could be obtained by a few adroit cleavages from the unworked boulders amidst which they lie. Mr. Evans\* actually succeeded in reproducing similar forms, by using a rounded stone mounted as a hammer, and striking off successive flakes by sharp blows, from the flint stone to be fashioned.

The bed of drift, amidst which they are found, is one of those superficial layers of gravel or sand spread out by the driving action of water over much older rocks, as the chalk. Though a late deposit in geological time, yet it is found, as in the gravel pits at Mench court, to contain remains of numerous animals, which have hitherto been supposed to have ceased to exist long before the human period. Thus, mingled with these worked flints, while found bones of the Mammoth (an extinct gigantic elephant), the cave lion, an extinct species of rhinoceros, a remarkable deer of very large size, having horns of enormous spread, a very gigantic species of bear, now extinct, and a hyena, conquired with which the largest existing species is not worthy to be named. These manimaliferous heds of sand, learn and gravel extend over a considerable tract of country on the slopes of the valley of the Somme, and are worked in several localities as gravel pits, for brick-clay and for the reput of the roads. The beds which have been reached incline from a level of 90 fect to one of 20 feet above the level of the river Sommer. By a rass fortunate coincidence the same soil, which contains in its lowest d-pths

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these early traces of the human race, contains also some of the most perfect remains of the earliest historic period of civilization in France. For the gravel pits at St. Acheul, near Amiens, which have yielded vast numbers of these rude worked flints, are situate on the site of the vast graveyard to the great Gaulic city of Samarobriva, celebrated by Cæsar and Cicero. Roman Sarcophagi, containing coins of the 4th and 5th centuries have been found. But this great Necropolis contains graves much older even than these, as well as others of more modern date, for it continued to be used through the Merovingian and Carlovingian periods. These mixed graves can be seen in the cuttings for the sand pits, but they only extend through the upper 6 feet of the soil. And far below these, through undisturbed beds of clay, sand and loam, at a depth of from 18 to 20 feet from the surface, lies the bed of gravel, amidst which the remains of extinct mammalia and the flint hatchets are found ! As Mr. Evans well puts it: "under any "circumstances, this great fact remains indisputable, that at "Amiens, land which is now 160 feet above the sea, and 90 "feet above the Somme, has since the existence of man been " submerged under fresh water; and an aqueous deposit, from "20 to 30 feet in thickness, a large part of which must have "subsided from tranquil water, has been formed upon it. And "this too has taken place in a country the level of which is "now stationary, and the face of which has been but little " altered since the days when the Gauls and the Romans con-"structed their sepulchres in the soil overlying the drift which " contains these relics of a far earlier race of men."

These startling discoveries were, however, long ago anticipated in England; precisely similar large worked flints having been found associated with huge bones of extinct animals: 1st. in deep excavations near Gray's Inn lane, London, more than a century ago, and 2nd, at Hoxne, in Suffolk, about 1797. It is curious to turn to an old volume, (XIII) of the

Archæologia, and find Mr. Frere's short yet graphic account, illustrated with excellent engravings, of this remarkable discovery. Messrs. Prestwich and Evans visited the brickfield, where basketfuls of these rule weapons were found in Mr. Frere's time, at 12 feet below the surface in the gravelly stratum underlying brick earth. They found it still occasionally worked, and that "fighting stones," as the workmen call them, are met with, associated with huge fossil bones and shells. The flint weapons selected by Mr. Frere still remain on the shelves of the Society of Antiquaries, and are so like those from the valley of the Somme that they might be supposed to have been made by the same hand.

Those singular caverns, occasionally discovered in different parts of Europe, containing remains of the same gigantic extinct animals, have been frequently found also to contain rude articles of human workmanship, that knives, bits of rude pottery and charcoal. In the hence-caves at Engis, near Liège, human hones were found mingled with those of the cave-bear, the mammoth and the fossil horse, in the same drift deposit forming the floor of the cavern. Mr. Leonard Horner, in his address to the Geological Scriety for 1801, announces anoth r similar discovery.

Such, then, are the earliest traces of man yet discovered. Of that later era, when operhaps after multiplich contactes of almost unprogressive existence) he hall should have a read to fashion numerous and very varied instruments out of flints and stones, hone and pottery, to give polished surfaces and a smooth edge to his tools, abundant evidences remain in every corner of our land. These are also found much near rathe surface. In our own n ighbourhood, a boundariely polished hatchet, with part of the handle still attached. Plot H, for, 0) also a huge hammer-head of a softer stone, perforated to admit the handle, were found in the beg at Training relevant now

in Mayer's museum.\* The numerous specimens of wonderfully elaborate flint instruments from the same museum, represented in Plate III, were obtained from a very remarkable locality-Danby Moor. The moor lands of North Yorkshire are full of remains of the later stone period. Shut in for many ages by vast forests, bogs and morasses, they have preserved the relics of a primitive age in a wonderful manner, and groups of little villages may still be traced by their ruins. The separate abodes appear to have consisted of a hole in the ground, lined and paved with unhewn stones ; they were, doubtless, thatched over with poles from the neighbouring forests, and finished with rushes and sods. Marks of fire are always found on the floors. Rude fortifications once surrounded by ditches, tumuli and stones of memorial, abound in this district, in which are frequently picked up flint spear and arrow heads, most delicately wrought; stone hammers and hatchets, beads of jet, and pottery of the ruder type. Other articles, such as fish-hooks. knives and even small saws, curiously wrought out of flint, are continually turned up by the plough and the spade. Also, vast numbers of flat, circular stones, about the size of a crown piece, chipped to a rough edge, which must have made formidable missiles when thrown from a sling or a cleft-stick. Indeed, so numerous and varied are the remains, that we might to some extent reconstruct the daily life of a simple people, to whom the art of writing and the use of metals were still unknown; but who were expert at fishing and the chase, and had planted their simple dwellings where wild fowl abounded and fish were plentiful.

Still more striking and instructive revelations of "Life in "the Stone Ages" have come to light in Switzerland. Herodotus

<sup>•</sup> Mr. H. Ecroyd Smith informs me that he has picked up occasionally flint arrow-heads, usually broken, and flat sling-stones worked to an edge, on the shore at Leasowe, near the submarine forest; also on the Hoylake shore, near the mouth of the Dee, and at Great Meols: and a flint spear-head on the lesser Hilbre Island. Worked flints might doubtless be met with in numerous localities, especially by the banks of rivers, but they have hitherto been overlooked.



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described, 2,300 years ago, how the Peronians, dwelling in Thrace, constructed fishing villages on Lake Prasias, upon platforms, supported by tall piles in the midst of the waters. Thus they could follow their calling safe from enemies or the ravages of wild beasts. It had long been known that remains of such existed beneath the lakes of Switzerland; but they had attracted little attention until, in 1853 and 1854, seasons of extraordinary dryness occurred. The waters sank a foot lower than the lowest level yet recorded. Much land was reclaimed from the lakes, the enclosures being filled up by soil obtained by dredging. In this way, vast remains of these pilevillages, with numerous relies of their inhabitants, were brought to light. Thus, 26 such village sites were traced in the Lake of Neufchatel, and 24 in the Lake of Geneva. As to the relics, 24,000 objects were found in one single locality, scattered through the mud, around the stakes or close to them. The lake-villages differ greatly in antiquity, as determined by the length of the stakes, still remaining more or less perfect above the mud. The older were inhabited by a race entirely ignorant of metals. In eastern Switz rland, the villages as yet discovered have yielded no traces of metal tools among their abundant relies; amid their ruins were found stone axes, hammers and chisels with handles of horn, rude implements for crushing corn, a great variety of coarse pottery, implements of bone, lance and arrow-heads, knives, needles, and saws, all made of flint, though flint is not found in Switzerland. The saws were carefully cemented into wooden handles. Amber and coral beads were also found, which show that even these primitive races were visited by traders from the Mediterranean. From the size of the weapons and their handles, it has been inferred that these men of the stone age were of diminutive stature.

<sup>•</sup> The natives of the Andanismislands, who seem to belong the are bothered undescribed, are said, though well proportioned, to us rate beared by fortunbright, and a similarly diministry rate may have overspread Switzerland. However, many of the earliest flict weapons yet found for Americand elsewhere tas

Their dwellings, which were constructed of wattles, coated over with clay, bear marks of having been destroyed by fire; and there are many other reasons for concluding that they were exterminated by another race, who used bronze weapons. This race also erected some lake dwellings, and took possession of others. In them are found bronze swords and axes, with a great abundance of articles of personal adornment, as brooches, hair-pins, chains, rings and buttons, showing an advanced culture. This Bronze age appears to have been of long duration, as shewn by the great thickness of strata of relics they left behind, and the very various ages of their settlements. They also, in their turn, were overthrown, and nearly exterminated by a race wielding swords and spears of iron. Out of 70 or 80 villages, occupied by the bronze race, 11 only contain traces, and these but slight, of the Iron age. The new conquerors seem to have despised and left to ruin the "pfahl-"bauten." Now, these men of iron were probably the Helvetii, a Celtic race, whose numerous and warlike colonies possessed the land when first invaded by Julius Cæsar, so that at length we approach historic times and peoples. Innumerable other facts of great interest as to the occupations, habits, dress and pastimes of the pre-historic races who dwelt for unnumbered ages in these lake villages, are detailed by Troyon \* and Keller.†

The animal remains—the refuse of their meals—which were found in great abundance, though comprising a most extensive fauna, reveal but few birds or beasts whose race is quite extinct in our day.

The modes of sepulture were various. In the stone age their dead were deposited in stone cells, made of five or six

well as the perforated stone hammers of a much later age, so often met with in Yorkshire and Cornwall, could only have been wielded by men of full average size and strength. Every ancient race must have had its " Stone Age."

• Habitations Lacustres de la Suisse, par F. Troyon. 1860. + Die Keltischen Pfahlbauten, 1854-58-60, von Dr. Keller. See also "Gentleman's Magazine," 1860.

large slabs, into which the bodies were packed, doubled up, face and knees together, the arms crossed on the breast. The carliest British tombs yet discovered are of this kind. In the bronze era, the body was buried, as with us, extended, often accompanied with ornaments or weapons. With the advent of the iron age, first appears the custom of burning the body, and depositing the ashes beneath a tumulus or mound. And with this race, also, appear the first distinct proofs of savage rites and human sacrifices. Within a tumulus near Lausanne the skeletons of four young women, probably the victims in some bloody heathen rite, were found together in distorted attitudes, along with fragments of broken ornaments.

The crannoges, or small stockaded islands, remains of 50 or 60 of which have been discovered, chiefly in the small lakes of the north of Ireland, may be classed with the Swiss "Pfahlbauten;" but appear to have had their origin in a much later age. Stone and bronze objects are rare—those of iron and bone abundant. Ancient cances, hollowed out of a single tree, have been met with near them. These structures belong to historic times and, in the Irish annals of the middle ages, down to the 16th century, are many accounts of onshaughts by one native chief on the "crannoge" of another.

M. Troyon has attempted to fix the time when one of the Swiss Lake villages was abandoned through the recession of the waters, the alluvial deposit having continuously accumulated until the ruins have become buried several feet deep in the alluvium of the valley, at a distance too of 5500 feet from the present lake of Neufchatel. His data, which appear very plausible, give a period of 3300 years as having elapsed since the date of the abandonment. But the animals and plants discovered are such as still exist in Europe. What then

When the clear cold moon's declining, He sees the round towers of other days

In the wave beneath him shining."

must have been the interval of time which has elapsed since the first rude worked flints were deposited beside the bones of the extinct monsters of the Pleistocene geological period? We must be fain, however, to wait for further lights on this surpassingly interesting subject.

Professor Worsaae of Copenhagen has pointed out that all the lines of migration seem to come from the East into Europe, following the course of the great rivers and the shores of the Mediterranean. We have seen primitive forms of civilization early planted in Normandy, later still on the opposite coast of England (Suffolk, Middlesex), whilst no remains of the earliest kind have yet been discovered in Ireland. Surely a rich harvest of discovery waits to be gathered in the East! which seems to have been the birth place of all early improvement and change, either in the arts or religion. The tide has at length turned, and the West gives back with interest the rich gifts of the East.

To recapitulate :--- I have briefly glanced at the many reasons that exist for believing in the unity of the human species; that it had one starting point, not many. Taking this, then, for granted, we see in the varied existing states of mankind, so many illustrations of conditions through which the human species has passed, in its progress onward to the most advanced culture and power yet attained. We have seen abundant reasons for concluding that the first beginnings must have been small indeed. Of that earliest stage in man's history, when he was fain to be content with undressed skins for clothing, shells, sticks, and unwrought stones for his tools and weapons, though we may see its caricature in some degraded races, yet we cannot expect to find its trace in the region of antiquities. The first distinct glimpse yet obtained reveals to us men who were contemporaries of the Mammoth, and other huge extinct animals of the tertiary age, striving precariously to maintain their ground against such terrible foes.

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with rude weapons fashioned out of large flint stones, and from stag's horns. The earliest races appear to have been exclusively hunters and fishermen. They dwelt by the sea, by rivers and lakes; destitute of agriculture, and the arts that spring up amidst rest and peace. Then we find a long gap in our records as we turn over many feet of stratified soil and alluvial deposits, that lie between the carliest and latest flint implements; which seem to tell of long periods of time, during which man used flints and stones to make his most valued tools, unknowing of the treasures that lay beneath his feet. But when we come upon his traces once more, we find abundant proofs of advancement. The tools have become more claborate, the forms and materials for more varied. We begin also to find distinct and abundant remains of his dwellings, his modes of sepulture and his arts. At length other actors appear on the scene, strangers from far off regions representatives of much higher forms of civilization. These possessed the art of working in metals. First, a race or races who had tools of bronze, a metallic alloy which is hard, yet easily melted and cast into shape. Another and much later era is marked by the advent of a race who possissel weapons of it n-a metal far more useful, but also much more difficult to work. These earliest men of iron have left to us abundant remains of their greatness and cultury. For coins, as well as cheriots, atmour and sworls, glass and metal ornaments and various pottery, have been found on the site of a great unree ided battle near Berne. They possessed the use of letters, withave transmitted no hisrature or history. These in their turn passed away as a distinct race) before a still higher form of civilization, just as the ancient Mexicans before the Spanish invaders, or as the Majories of New Zealand are disappearing 1 fore our Anglesaxon race.

 But 200 years and Sir Hazh. My lot residence of the element with wooden pipes for supplying to Learney the Non-Rive. Water's the art of making large configs in iron being then under with.

What ages upon ages of slow progress do these things reveal to us, all unrecorded in history or in the traditions of mankind! Who knows but that a great future of discovery may yet be before us, uplifting the veil from a long forgotten past, and enabling us to write, at least in outline, many a lost chapter in the history of the human race? Throughout those long ages of the past, the art of writing had yet to be discovered, with all its wondrous results. Men dwelt in thinly peopled lands, and nations dwelt apart. Thus the knowledge and ingenuity acquired by one was lost to the many.

But the age of great cities is an age of united effort and rapid progress. We travel with ever accelerating velocity towards an unseen goal. Nor must the influences of Christianity be forgotten, ever tending to soften national enmities. and unite the weakest to the strongest as sharers in one common hope. It has been the fashion with many to look upon Universal History as a record of change-of flux and reflux-without real progression. Others have seen in it but one mournful sequence of degeneracy and decay, physical as well as moral. The startling discoveries at which we have glanced lend no support to such gloomy theorists. They tell only of incessant progress, however slow it may have been in the earlier stages; and we have passed for ever out of the shadow of those times into a fuller day. Our religion itself cannot be grafted on barbarism. Whatever may be the ultimate goal of the human race, God's hand will not drag us downwards, and we may safely adopt the more hopeful creed of our poet Laureate :-

Yet I doubt not through the ages one increasing purpose runs, And the thoughts of men are widened with the process of the suns.



# ABSTRACT OF THE PRINCIPAL MINES OF THE BURNLEY COAL FIELD.

#### By Joseph Whitaker, M.G.S., and T. T. Wilkinson, F.R.A.S.

#### (READ 2041) MALCH, 1862.)

Is a paper prepared for, and read before, the British Association, Mr. Whitaker and myself entered pretty fully into detail respecting the Burnley Coal Field. We have since thought that the following abstract (with extensive additions) of its principal features, might not be unworthy of the notice of this Society. On examining the whole of the strata lying between the surface and the himestone, it will be found that the coal measures range themselves into three natural divisions; each series being separated from the next by a thick mass of strata almost, if not entirely, devoid of coal. We shall adhere to this natural division in what follows.

#### BURNITY UPPER SERIES.

At a distance of about 50 fort from the surface, we have-I. The Dogholes Mine, 6 feet thick, strata 21 feet. II. The Kershaw Mine, 3 feet thick, strata 81 feet. 111. The Shelly Bed, 21 feet thick, strata 19 feet. IV. The Old Five Feet Mine, or Main Coal, 5 feet thick, strata 33 feet. V. The Higher Yard Mine, 3 feet thick, strata 162 feet. VI. The Lower Yard Mine, 3 feet thick, strata 55 feet. VH. The Low Bottom Mine, 4 fect thick, strata 21 fect. VIII. The Cannel Mine, 21 feet thick, strata 22 feet. IX. The Fulledge Thin Mine, 24 foot thick, strata 66 feet. X. The Byng Mine, 4 feet thick, strata 240 feet. These form the first natural division, and may be appropriately termed the "Upper Scries." The roof of No. 1 contains Ferns in great abundance, Lepidodendra, Calamites, Sigillaria, Stigmaria, &c. A bed of Anthracosia overlies No. VI, which is probably identical with that in the Wigan Series. The roof of No. VII contains abundance of vegetable forms, to which Spirorbis

Carbonarius occasionally adheres. Another band of Anthracosia overlies No. VIII. The roof of No. IX is exceedingly rich in ichthyological remains. Jaws, teeth, scales, and vertebræ of Megalichthys, teeth of Ctenoptychius Pectinatus, Hybodus, and C. Apiciales; and rays of Gyracanthus, Pleuracanthus, &c. A curious attenuated bivalve (unnamed) is also found here. The "byng" portion of No. X contains Trigonocarpi in abundance, as also Lepidostrobi and Anthracosia.

#### THE ARLEY, OR HABERGHAM SERIES.

Omitting several minor seams, we have here:—XI. The China Mine, 2 feet thick, strata 99 feet. XII. The Dandy Mine, 3 feet thick, strata 141 feet. XIII. The Habergham, or Arley Mine, 4 feet thick, strata about 675 feet. These form the Habergham Series, and give about 9 feet of coal to 445 feet of strata. From the "bone bed," in the black shale roof of No. XIII, fine specimens of remains of Megalichthys, Rhizodus, Diplodus, &c., have been obtained. The depth of strata below this mine, almost devoid of coal, forms the second natural division of the Burnley field.

THE GANNISTER, OR SPA CLOUGH SERIES.

Again, omitting several minor seams, many of which may be seen in the fine section in Dulesgate, near Todmorden, we have :—XIV. The Foot Mine, 1 foot thick, strata about 21 feet. XV. The Spa Clough Top Mine,  $2\frac{1}{2}$  feet thick, strata 140 feet. XVI. The Spa Clough Bottom Mine, or Bullion Mine, 4 feet thick, strata about 320 feet. This forms the *third* natural division; and, probably, in the above must be included :—XVII. The Salts Mine, and XVIII. The Spanish Juice Mine, which were identified during the Manchester Geological Society's recent visit to Gawthorpe Hall (*Trans. Man. Geol. Soc.*, vol. 2, p. 50), and are those so named in Mr. Binney's general section (*ibid*, vol. 1, p. 77); but their position in this locality is, perhaps, not yet accurately known. The roof of No. XV contains rays of *Gyracanthus*, teeth of



Rhizodus, Megalichthys, Holoptychius, &c. That of No. XVI is very rich in fossil remains. Specimens of the genera Buccinum Pyramis, Catillus, Bellerophon. &c., are found in abundance, as are also Pectens, Goniatites, and Orthoceratites. The usual coal plants abound.

### THE GRIT SERIES.

This series naturally forms itself into three subdivisionsthe Upper, Middle and Lower Grit Beds. The "Upper Beds" consist of XIX. The Boaredge Mine, 9 inches thick, strata about 38 feet. XX. The Featheredge, or Sand Mine, 2] feet thick, strata about 420 feet. The "Middle Beds" comprise-XXI. The Brooksbottem Top Mine, 6 inches thick, strata 6 feet. XXII. The Brook-bottom Middle Mine, 8 inches thick, strata 42 feet. XXIII. The Bro-kshottom Bottom Mine, 1] feet thick, strata about 320 feet. The above distances and thicknesses of bods, Ac., are taken from Mr. Binney's general section plant they must not be considered as unitoria throughout the Locality. The whole of the raines, however, existence the Burnley Field, as also the full wing from the same section. The "Low r Bods" are, XXIV. The Thin Grit Mine, 4 inches thick, strictly about 45 feet. XXV. The Thick Geit Mine, S inches thick, strata about 400 feet. The last two scams, with some others, are to be seen at Gauxh line, near Todmorden ; and also in varius places rear Newshurch, in Pendles - A hole of shale openpits a mildle position le tween the Upper and Lewer Grit , and contains speciments of Pheripmoceras, Generatites, According estens, Posidonia, and Orthe cratities.

The Yorefale Rocks succeed the Millsteile Cette, and average indepth, botween Pendle and Clitheree, at 1, st 900 feet. These are succeed do by the Carbonal rocks family family the strate which pass into the Old Rod Sondstone and Devenan rocks, as noticed by Mr. Hull in fast vie flont rock on "*The* "*Coat Fields of Great Britain*." Various thats traverse this Coal Field in the direction of N. W. by S. E. One of these throws up the Arley, or Habergham Mine, to very near the top of Hambleton, a vertical height of over 300 yards. This coal again occurs, near Thorney Bank Farm, at a lower level of over 40 yards; whilst at Habergham itself its depth below the surface is at least 200 yards. A throw of about 100 yards in vertical height brings the same mine, at Fulledge, to within 240 yards of the surface, notwithstanding the presence of the Upper Series; and this has been taken advantage of by Mr. George Wild, the well-informed manager of these collieries, who, by driving a drift from one of the Upper Mines, has won the Arley Coal by a vertical shaft of only 40 yards in depth. A vein of lead ore of fair quality occurs amongst the strata above Hambleton Quarry; it occurs again near Thieveley Farm, in Cliviger; and, again, on the hill side, near Cross Stones, Todmorden. Its direction is consequently nearly N.W. by S.E. There are many good natural sections of the strata in different localities; the one at Heysand Ford, near Burnley, gives two of the Mines in the upper series, and also an accompanying bed of Anthracosia, &c. In an artificial section at Habergham Quarry, the sandstone rock is covered by a layer of shale, almost wholly composed of Calamites, Lepidodendra, &c., and above this are about 20 fect of dense blue clay, containing boulders of grit, waterworn masses of encrinital limestone, portions of cannel much waterworn, coal, &c.; the debris of strata which have been long exposed to a powerful denuding action. From the presence of the rounded masses of encrinital limestone, &c., it may be inferred that the currents in the old seas set from N.E. towards the S. W., or from Craven towards the estuary of the Ribble-To these and glacial action may be attributed all the denudations evident in the district; and, when standing on the crest of Hambleton, and looking down the valley of the Calder, and up that of the Hodder, it is not difficult to trace, at least in imagination, the terraces which have successively formed the margins of these ancient seas.



# ON

### A RECENT CASE IN THE COURT OF PROBATE.

Ry Ducid Reston, P.R.S.L.

Principal of the Tollegic enserview for the treatment of the safe.

(READ FIRE DO MORE 1861.)

Is the Spring of the present year an entirely new ouestion arose in one of the High Courts of English Judicatory. On the 2nd of May, 1861, in the Court of Prolote at Westminster, before Sir Cresswell Cresswell and a Special Jury, the case of Wilton r. - - she ere for hearing. Mr. Boydl, Q.C., M.P., and other counsel wire the the plantiffe Mr. Serge of Porott. M.P., and other learned court in a and so of for the of foreback Mr. G. P. Wilton, as surviving executor in depth (v.J. of the late Miss dans Poole or Luiller, helt applied to pollar of the will pith is was eppesed by the diffindent, and believe the trial. D fendant objected, to the well will have proposed 1. that the Testern's Fer sister, was not of test mentery capacity, and that therefore the will was involde. The facts were these. Miss Poole was born deaf and detableted, of the age of sixty years, because blind also - In 1852, nine years afterwards, she made her will, and the novel question where the court had now to try was, whether a person deaf and domb from her birth, and blind for nearly ten years, was equilible, in the seventieth year of her age, of understanding her own affairs, and competent to make a will.

Concerning the mental competency of the blind there is no question. Communications *riva* roce are as common to them as to ourselves.• With respect to the deaf and dumb, who,

<sup>•</sup> The present King of Handwer contain to Her Mejesty list is no stoom spicuous lying instance of one who is blind, being able to take his part in the business of life with comparatively little deficulty.

in the absence of hearing, are to be addressed through the eye, the law requires certain proofs of ability to understand, and to be understood by, those who are versed in their peculiar modes of communication. This, however, is common to all legal proceedings in which they may be concerned-e.g., as witnesses or accused-and is not peculiar to the question of competency to make a will. As a class they are not under any disability : but circumstances may raise the question as to the mental capacity of any individual mute as of any other person, and this question of fact can only be settled by an enquiry of precisely the same nature as would be resorted to in any other case. But when we come to regard the position of one who is blind, as well as deaf and dumb,-who having had to depend solely upon the eye as a substitute for the ear, is bereft of sight as well as hearing, the case then assumes an exceptional character-happily most exceptional-and on the first consideration of the matter perhaps the question of competency may seem decided, or rather put aside altogether, by the enormous difficulty, or as some may think, impossibility, of holding adequate communication with a mind imprisoned in the darkness and the silence of such a fearful solitude.\*

We use the terms "blind" and "deaf and dumb" very familiarly—so familiarly, that when we recognise the condition they describe, we never pause to consider the characteristics which belong to it. The deaf person, being deprived of hearing, relies upon the sight: the blind, without the function of the eye, relies upon the hearing. But when these two afflictions meet in the same person, the sufferer has not merely one

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<sup>•</sup> The reader will here be reminded of Mr. Dickens's description of Laura Bridgman, in his *American Notes.* "The thought occurred to me as I sat down "in another room, before a girl, blind, deaf, and dumb, destitute of smell, and "nearly so of taste: before a fair young creature with every human faculty, and "hope, and power of goodness, and affection, inclosed within her delicate frame, "and but one outward sense—the sense of touch. There she was before me; built "up, as it were, in a marble cell, impervious to any ray of light, or particle of "sound; with her poor white hand peeping through a chink in the wall, beckoning "to some good man for help, that an immortal soul might be awakened."

loss added to another, but he is deprived of that very alternativo sense which in ordinary cases is the resource and compensation of the other. And it is impossible fully to understand and to realize the condition we have now to consider, unless we compare it with our own. In this very matter of bequeathing property, (1) some persons make their own wills. Now Miss Poole could not do that, because she was blind and could not see a written character. (2) Others give directions as to their will; but she could not do that, because she was dumb. Or, (3) they answer questions put to them to ascertain their wishes; yet this, too, was denied to her, for she was deaf, and could not hear a question put. And finally (1) every testator can see, and read, the draft of the will when completed ; but she could not do that either, for, in her blindness, she could not tell whether a paper in her hand was written upon all over, or was a perfect blank. It is impossible to conceive a condition of more helpless dependence than this : and thence probably arose the thought that a human being, so dependent upon others, could not possess that independence of thought and action, necessary to make such a will as the law would hold to be a valid instrument.

And now you see the difficulty. Here was a person who could not write her own wishes, nor read them when written by another, and who could neither speak nor be spoken to. If you spoke to her, she could not hear; if you wrote, she could not see; and if she made signs to you, you could not understand her. This is the exact state of the case. How the difficulty was met and overcome; how the will was framed and executed; how it was impeached and tried, and, in the end, triumphantly sustained, are the matters which, in conformity with a suggestion made to me soon after the trial, I have undertaken now to detail to this Society. My acquaintance with the late Miss Jane Poole commenced in the month of January, 1852.

Shortly before my appointment to my present office in 1851, enquiries had been made at the Institution in London with which I was then connected, to ascertain if any official of that Institution was capable, and would be willing, to hold an interview with a lady deaf, dumb and blind, so as to pronounce an opinion upon her competency to understand the nature of her own property, and to have the management of her own affairs. The late Mr. Watson, Principal of the London Asylum, mentioned my name to the gentleman making the enquiry, and recommended me for the task. For some months the matter remained in abeyance, but on a second application, by another friend of the lady, in January, 1852, he again referred the enquirer to me, though I had then left London and come to reside in Liverpool. The result was a visit to Ludlow on the 17th January, 1852, when I had two interviews with the lady, in the presence of gentlemen who became, with myself, witnesses in the Court of Probate in May last. The object of that enquiry was to discover how far she knew the extent of her own property and was acquainted with the nature of it, and, further, whether she was willing that it should remain under the control of relatives who had assumed the right to manage it for her, or whether she wished it to be placed under her own control. In the prosecution of this enquiry it was inevitable that I should form a definite and strong opinion as to the mental capacity of one capable of answering all the questions which arose in such an investigation, in spite of the extraordinary difficulties caused by her accumulated afflictions. The questions proposed were suggested by Mr. Wilton, her solicitor; conveyed to her by myself, and her answers repeated aloud by me: the whole being taken down in writing by Mr. Wilton. The questions and answers thus recorded were embodied in an affidavit, which set forth the particulars of her



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age, early life and education, personal knowledge of the parties connected with her property, and her feelings towards them, and the exact expression of her wishes with respect to the management of a sum of £7000 left her by a decrased relative, and of other moneys to which she was previously entitled. To this was added my own opinion as to her mental capacity, with the grounds upon which that opinion was based. In due course, the Court of Chanesry was moved to withdraw from the relatives of Miss Poole the charge of her property, and to vest it in herself. On this, the solicitor of her relatives applied to me to visit her again, on their behalf. I at once declined to do so. The final r sult of the application was to establish beyond a doubt that Miss Pooles mental capacity was ade plate for directing the manage to at of her own affairs : and under the direction of the eart, the \$\$7990 involved in the enquiry were re-invested, the chille in children arising therefrom leaver reade payable to version obsension for Miss Peole herself, to get on L r lo half.

A f w months afterwards out the close of the sum year  $1852 \pm 1$  was informed that Miss Poole had given directions for the preparation of her will, and that my ail was absolutely required, and my judgment of her tails such capacity necessary. It was considered that with such physical infirmatics to contend against, too much caution could not be used in the preparation of such an instrument.

I have not yet described the mole of communication which the numerous afflictions of this lady rendered necessary. It was, of course, the same on all occasions, but the importance of the transaction, the weighty interests involved, and all the impressive circumstances surrounding the final execution of the will,- which have left an impression on my own mind and a pictured scene in my own memory which can never be effaced,-seem to point this out as the proper occasion for

explaining the mode of communication between myself and the testatrix.

I have said that the scene which I am now striving to recal was a very impressive one. Not only the occasion, and the place, but the time itself tended to make it so.

None of us can have forgotten that memorable week when the greatest of modern heroes was laid, amid the regrets of an empire, and the homage of the world, in his last resting-place under the dome of St. Paul's. That gloomy November morning-that imposing array-all the outward pomp and circumstance of war, with all its spirit gone,-armed men by thousands, all trained and marshalled to obey the voice which never should be heard again; now trooping on in mournful silence, and now to the still more mournful wail of military music-consciously stricken with humbleness and awe in the presence of that mortal Foe against whom courage is vain, and battle hopeless; before whose unerring shaft we one and all must fall :-- all this we can remember, and that wonderful crowd, living and moving, but hushed-led thither by one impulse, influenced by one feeling, attracted by one object,-countless thousands of living men and women drawn round to one point, and that point-Death; an old man's honoured ashes carried to their last abode. Such a centre to such a circle was never seen before in the whole world's history, and may never be seen again.

It was on the last day of that same week that the transactions occurred of which I am about to speak. The funeral of the Duke of Wellington was the one subject in every man's thoughts, and on every man's lips; and as one always reads of the death of another great military commander, Oliver Cromwell, in connexion with the terrific storm which occurred on the day of his death,\* so the extraordinary weather which prevailed at the time I am speaking of became associated with

• Clarendon's History of the Rebellion. Book xv.



the event of the great Duke's funeral. The heavy rains had fooded the meadows and swollen the rivers throughout the country; bridges had been washed away, low-lying houses inundated, railway-traffic suspended, and the rising waters had spread injury and panie far and wide. Of all this there were namerous traces on every hand. The line between Shrewsbury and Ludlow had only been made fit for the resumption of the ordinary traffic a few hours before I got there, and the rain was pouring down still.

**On such a** day, then, and at such a time, I found myself **once more**, and for the last time, within that old-fashioned **bouse**, in the old-fashioned town of Ludlow, in which Miss **Poole lived**. She rose on being told I was present, took my **hand and** shook it heartily, and on being asked, said she **remembered** my former visit very well.

All the persons who were present became with sses at the trial. They were either personal friends of the lady, or processional and official gentlemen whose attendance had been obtained, as the judge long afterwards described it: as a guarante effor the openness and justice of the proceedings. Of this latter class were the Rector of the parish, Miss Pool is mellical attendant, and her legal advisor: the intimate personal friends being a clergyman and his sister, who had known Miss Poole all their lives, she having been in early life the sche olf-flow, and afterwards the neighbour and frequent visiter of their mother, a lady deaf and dumb,—which latter circumstance had made them readily conversant with the mode of a minumention to be employed in the case before us.

There were two copies of the will. One which I shall describe as No. 1, by before Miss Peole and met the other, No. 2, was in the hands of the professional gentleman which had drawn it up.

Now, most persons know that nearly all the latters of the manual alphabet used in this country are made by using both

hands. In ordinary spelling, I make the letters with one hand upon the other. In this case, I made them with one of my hands upon one of *hers*. C, which is formed with the right hand only, I traced, whenever it occurred, with the point of my fore-finger on the palm of her hand. In this manner, my communications were made to her—she replying in the ordinary way, spelling with both hands, but sometimes making signs, and occasionally accompanying the words she spelled, or the signs she used, with intelligible efforts at articulation.

In this manner, I read over the contents of the Will No. 1, clause by clause; and in order to satisfy those whom I may call the official spectators, that its meaning was understood, and that it conveyed Miss Poole's own wishes, the following plan was adopted :--I, sitting on her left hand, spelled over to her, without uttering a word, a clause in the will, and then stopped. She, turning to the lady on her right, told her (in manual language, of course) what I had just said. That lady (the daughter of Miss Poole's old school-fellow, already mentioned) repeated aloud what had just been silently said to her, and the company assembled saw that it was identical with the text of the document No. 2, which the solicitor held in his hands. In this way, we went through the entire contents of the will. She paused at the technical words-" devise," and "executors," for instance-with a determination to master them, and asked me to repeat them if she did not readily apprehend them. Then, when she had got the word correctly, she spelled it over to herself, slowly and elaborately, afterwards reverting to her own more familiar expression for conveying the same sense ; and the identity of meaning was to me a manifest proof that the phraseology of the will was fully expressive of her own wishes. In one instance she corrected me by saying that a certain bequest was "one hundred," not "one thousand "pounds." She named with great precision all the legatees, and the amount of bequest to each, repeating some of these

particulars several times with unfaltering accuracy (spelling the words, letter by letters, in such a manner as was conclusive, not only of her competency to make a will, but of the fact that its provisions were emphatically the expression of her own strong wishes and purpose. It was to me peculiarly gratifying to find that she had not forgotten the institution with which I am connected. Her own words were, "I give "the poor deaf and dumb at school at Liverpol, one hundred "pounds," and she dwelt upon the phrase, " the poor deaf and "domb" with a degree of sympathy which we can, perhaps, but imperfectly concerve. When all was done, she said it was " all "right," and put out her hand for the pen with which she was to affix her signature. I handed it to her, and when she had placed it in the proper position, she felt the plint, then by measuring the requisite distance, and escontaining if it was furnished with ink p and then, she wheehold new rescale a written character for nine years clefter at that time sixty years of age, and now nearly s yearly swoots for mine in fell, **boldly and very** legibly, and, with the exect flow of the second tare inclining upwards, exactly as any one else reacht have done. It was a striking and such stay, light. It shows ha human mind unexting a shid and in xtreenish dde under avaccumulation of offlictions of others, blindrows, and eitherswhich one would have thought were rear than with rait to crush out every glimmer of vitelity.

These were the facts to which I was called to be realizes at the trial. Evidence was also given by these best ac prainted with her life and habits, as to her system die name evid kopping her own moneys, even when  $s^{1} = codd$  is changed kopping her own moneys, even when  $s^{1} = codd$  is changed kopping her own moneys, even when  $s^{1} = codd$  is changed kopping her own moneys, even when  $s^{1} = codd$  is changed to by the accounts. On two eccasions, when she was applied to by the Bector and the Mayor for her assistants to some 1 and edge t, she rose and fetched from some other part of the hease, two sovereigns in one case, and a five pound note in the other.

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She would even go shopping, buying what she required, with the aid of her attendants, and herself paying for what was bought. Some of her early school-books were put in evidence, and her own books of account, in which she had noted down her regular disbursements and household expenses in after life; but previously, of course, to the time when she became blind.

It was interesting to observe from where I sat in court the effect of the evidence on the minds of the jury. After those witnesses had been examined who were present at the execution of the will, and while the plaintiff was giving his testimony, it became evident that the cause was won. An attempt was made to stop the case. One of the Jury said it was useless to occupy their time any longer. Mr. Sergeant Pigott replied that only one side had yet been heard. The judge said it was not for him to pronounce an opinion, but it was clear that very strong evidence was required to answer that which had already been given. However, the trial went on, but presently, as the corroborative testimony accumulated, and no point was made by the other side, the impatience of the jury broke out again, and a proposal was made by the defendant's counsel to compromise the case. This was unsatisfactory, and the cause again went on until five o'clock, when the court rose, adjourning the further hearing until the next day. As we came out into Westminster Hall, the members of the House of Commons were thronging down to the great debate on Mr. Horsfall's motion upon the Tea Duties. Next morning we were again in court, and no sooner had the jury taken their places, and the judge his seat upon the bench, than Mr. Sergeant Pigott rose and said that, after the evidence which had been given on the previous day, and the significant observations of the jury, the defendant had determined to withraw from all further opposition. He added, that the fact of the existence of the will had never been known to the defendant until after the death of the testatrix, and that the evidence in support of it,

and of the manner of its execution, had come upon her quite by surprise. It will have been gathered from what has been said previously, that the sisters were not on good terms - that Miss Poole believed her sister had endeavoured to injure her, and she resented it accordingly --not an anniable feeling certainly, but searcely a fact to be appealed to as pro-f-of-imbecility of mind. And yet, while the poor hady here gratefully in mind those who had been truly her friends, she did not allow her resentment to lead her to for both read claims of relation-hip, for the bulk of her property was, after all, 1 ft to this very sister's children.

And now, before I conclude, you must allow me to point the moral of my story. It is very hert and simple, but very obvious, and essentially practical. It is this. How vastly, how immensurably important must a buestion be to the d af and dumb. For every one, education of a much of risome presents more than for others clear for the deafendate risk a absolutely everything

This afflicted buly received bery the dimber the vary test School for the diatand durid carp left to be which was ever opened in Englished. An estimation that a different the one the first principal of the Lordon Association. Her assister in that Asylum has easily been estimated by a sever best in the a Asylum has easily been principal of year ever best in the bein Liverpool. In which capacity the case of a discussion of a postice and we using a minor of the maximum of a set by and the of the her set of the set of the bar of the set of the best of the set of the set of the bar postice and set where an interface of the bar of the bar of the set of the base of the set of the bar of the bar of the set of the base of the set of the bar of the bar set of the set of the base of the bar of the bar of the public metric them these bar of the bar of the bar of the in every possible obstruction of the bar of the bar of the of two the first tends. The first the bar of the bar of the age the row is the bar of the set of the bar of the bar of the bar of the bar of the age the row is the bar of the bar of the bar of the bar of the the bar of the set of the bar of the set of the bar of the set of the bar of the set of the bar of the set of the row is the bar of the set of the bar of the set of the bar of the set of the bar of the bar

incalculable good. It never turns a single eligible applicant away, though to do this it has lately been enlarged at very considerable cost, a part of which, I am sorry to say, still remains as a debt and an embarrassment to its free action.

And now, education which in this lady's youth was a novelty and an experiment-only just placed within the reach of any, and they the wealthy few-is attainable by every one requiring it. Thanks to the generous hearts and hands in Liverpool there is not a single deaf and dumb child, however poor and friendless, who may not enjoy the blessing to which she owed so much, ay, everything. For it was this-education-which enabled her to claim her rights, to defeat injustice, to enjoy her own, to practice forgiveness at the last towards those who had injured her, and to cultivate and gratify her natural sympathies with those afflicted like herself. It was by this that the native powers of her mind were cultivated; that she grew up in the enjoyment of the pleasures of life, and trained to perform its duties ; and, when to the silence of sixty years was added the darkness of twenty more, she could still, with quick intelligence, and cheerfulness of spirit unimpaired, hold on her course until her summons cameuntil she was admitted into that new and higher life where we shall all be delivered "from the body of this death," and "where the eyes of the Blind shall be opened, and the ears of "the Deaf shall be unstopped, and the tongue of the Dumb " shall sing."

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# **METALLIC ORNAMENTS, AND ATTACHMENTS** TO LEATHER.

By the Rev. A. Hume, D.C.L., F.S.A.

(BRAD 14TH MARCH, 1961, and 1st May, 1962.)

#### I. INTRODUCTION.

The use of metal in connection with leather is very ancient ; and it is a combination which promises to endure as long as the human species. A primitive people first used the raw hide; sometimes with the wool or fur inside, as in the garments of many of the Russian peasantry, and sometimes with it outside, as in the ancient Highland brogue, or in the calf-skin waistcoat which one sees occasionally upon a farm labourer. In America, buffalo robes are still common for winter wear; and until recently, the native inhabitants of Tesmania and New Holland prepared very elegant robes, by sewing together the skins of opossums. These are now rarely procurable, having in general given place to the English blanket. Coats of skins formed the garments of our first parents;\* and ancient Griefan sculptures, referring to the heroic ages, show us persons similarly habited; that is to say quite naked, except with the skin of a large quadruped fastened round the body. We can the more readily believe that such representations were correct, when we know that 120 years have not passed since many of the Gaelie people ware but one article of dress, the plaid. Fastened in plans round the waist, the lower extremity formed a sort of pettreoat, while \_\_\_\_ . ..... . .....

f • Gen. 11, 21.

the upper portion enveloped the shoulders, the arms, and occasionally the head; but on any emergency it was wholly thrown aside, and its owner plied his task untrammelled by clothing of any kind whatever.\*

Upon this arrangement, the use of leather, properly so called, was a marked advance; and it is a stage of improvement which the lowest order of savages have not reached. The first idea was that of protection or defence; and the simple material suggested easy advances. Thus the leathern buckler was studded, or covered with thin plates of metal; and the leathern armour generally was strengthened by rings, or scales, or small plates of metal. The generation has scarcely passed away, whose junior members saw the studded buckler in actual use in our own island; and the history of defensive armour in England, since the Conquest, shows several combinations of leather and metal. From the Bayeux Tapestry we learn that plain leather constituted the defensive armour of many of the

• To this fact Colonel Clelland alludes sarcastically, in describing the "Highland Host" of 1678 :---

They need not strip them when they whip them, Nor loose their doublet when they're hanged. Also, in the old balled of the *Battle of the Brig of Dee*, we read— The Highlanders are pretty men For target and claymore ; But yet they are but naked men

To face the cannon's roar.

At Killieorankie in 1689, and at Sheriffmuir in 1715, the Highlanders threw away their only garment, and fought stark naked; and they gursued difficult work in the same condition, as in making the great roads and canals of the North. The inventor of the kilt was an English military tsilor, called Parkinson, about 1797, and the first man who wore it was an Englishman and a quaker, named Rawlinson, the agent of a Liverpool company. The aged chieftain of Glengarry was the first Highlander who ever wore it; but the Highlanders generally objected to it, till the battle of Fontenoy in 1745 had given it respectability. In 1743, Sempill's Highland regiment mutinied and escaped from London as far as Northamptonshire, in five night marches—the objection being that "you dress your coldiers as you dress your women." Pinkerton's Escay in the Ulter Journal of Archeology, vi. 816;—qu. Stuart, Burt, Sir John Sinclair, MacCulloch, &c.

combatants ; after which mascled armour, and rings or scales sewed on, proceded "chain mail" which was used without any such base, and the still more modern plate armour. In the ancient romances, these pieces of metal were sometimes called "mails." Thus in the *Three Early English Metrical Romances*, edited by Dr. Robson for the Camden Society, from a manuscript in the collection of J. Ireland Blackburne, **Esq.**, several of them are represented as cut from the armour of Syr Gauan at a single stroke :—

> Syxti mayles and more, The squard squapper in tor, His canel-bone alloce, And cleuit his schild clene.

The brass of Sir Roger de Trumpington, 1287, exhibits an interesting variety. A row of overlapping rings sewn on the leather, leans in one direction, and the next row in another direction; so that a sword stroke in any direction was met by several of these alternate rows of rings.

These facts, however, are mentioned only as incidental and introductory, though perhaps included in the general title. The object of the present paper is to show the frequent use of more minute metallic objects, some of which have been to a great extent overlooked, or treated with a degree of attention scarcely proportionate to their importance. Among the objects discovered on the sea coast of Cheshire, near the village of Hoylake, during a period of forty-five years, are large numbers of small metallic objects, which it is clear were extensively used by the persons whose existence they indicate; and it was in the course of comparing them with the pictorial and other representations of past generations that these mmarks were suggested. The objects themselves are shown on the adjoining plates, originally engraved to illustrate the fall and formal account of these Cheshire antiquities; and, for the sake of simplicity, the order adopted in the plates is followed here.

### II. BUCKLES WITH ATTACHMENTS.

It is unnecessary to say anything of the early use of buckles or of their extensive use; for it is sufficiently obvious that in Anglo Saxon and more recent times, they answered to a large extent the purpose which is now served by buttons. The silver buckles which adorned the shoes of our grandsires have disappeared; the more common use of trowsers has also removed them from the knees. The employment of elastic bands has superseded them as adaptations in the width of the waistcoat; they are rarely used on the cravat or stock; and perhaps the only buckle that could be found in the dress of a modern gentleman, is that which he wears unconsciously in his hat-band, or possibly there may be one on each of his The ancient trade of Pluscularius or buckle-maker braces. has therefore disappeared, or has become merged in the more general manufacture of hardware; and the more frequent use of machinery, as well as the tendency to localise productions of a certain kind, has withdrawn from our view that which was formerly a prominent and interesting department of the arts.

The material consisted of metal of all kinds, gold and silver being employed rarely, and only by the rich. It appears, from the apocryphal books of Scripture, that buckles of the former material were used as symbols of honour; a buckle of gold having been sent by King Alexander to Jonathan, "as the use "is to be given to such as are of the King's blood." Also "he gave him leave to drink in gold, and to be clothed in "purple and to wear a golden buckle." Those which are found on the Cheshire shore are nearly all of brass or bronze, the largest being about two and a half inches in width. In general, however, they are smaller, few exceeding in size that of No. 4, in Plate IV. Buckles of copper and latten are

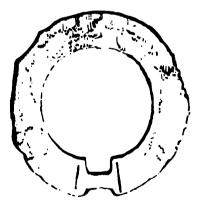
• 1 Maccab. x. 89.

+1 Maccab, zi, 58,

alluded to by several of the older English writers, and, occasionally, as in this collection, they were of lead. Those of iron are usually larger and stronger, and evidently adapted for a coarser kind of work.

The forms of buckles in modern times are very varied, yet they follow certain well known types, being adapted almost exclusively for use, and scarcely at all for ornament. Besides, except in private life, modern custom tends to uniformity, so that we speak of the dress of a soldier as his "uniform"; and even in the harnessing of horses, whether for pleasure or for the purposes of industry, economy and order compel a certain amount of uniformity. This was not the case when almost every citizen was a soldier; and when his own dress and the equipments of his horse were regulated in a great degree by taste or convenience. The modes of fastening in any one age must have been very varied ; and through several succeeding ones must have presented great variety. Accordingly, we find that of about 349 buckles or fragments of buckles in the present collection, scarcely two are coincident in form ; at all events, there are not fewer than from ninety to a hundred distinct varieties, but it is impossible to say what proportion these constituted of all the forms in actual use.

A few examples may suffice to show the forms which they sometimes assumed. The circular buckle was common, with a double indentation in the rim to admit of the movement of the tongue upon it. This is shown in the adjoining illustration representing a



1 From Kingston Down.



2. Arms of Case.

they are described as buckles and figured as in the margin; while the mode of attaching the acus or tongue is seen in the enlarged example annexed.

large brass buckle in the Faussett collection. Such objects are occasionally called fibulæ, and were probably used in connection with cloth rather than leather; but the fibula and buckle are sometimes so similar in appearance, and were in many instances so closely allied in their use, that either name is appropriate On the arms of Case, of Red Hazels and Thingwall Hall in Lancashire,



3. Circular Buckle and Tongue.

The following examples in brass, from Gilton Town, Kent, show other forms, with differing degrees of oval.







From Gilton Town.





4. Iron Buckle.

The rectangular buckle, which, like the others, is given of the actual size, is of iron; but in the ancient graves, comparatively few have been found of that material, especially so small.

The form of one on the brass of Richard Kniveton, in Muggington Church, Derbyshire, is very peculiar, and is unlike that of any in the Cheshire collection. The buckle and tongue appear to be of one piece, with an opening in the rim, at the point of the acus, apparently for the insertion of the material of a soft belt.

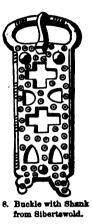


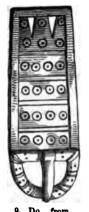
7. Bichard Kniveton Muggington, Derby

In our own times, the ordinary mode of attaching a buckle to its strap, is by passing the leather round the hinder bar, and sewing it upon itself. The part, therefore, upon which the greatest strain comes is at the doubling of the leather, and this is where it usually gives way; though there may be a mechanical advantage in leather working upon metal instead of metal upon metal. But, at various periods of our history. a contrary plan was pursued. The buckle was compound in its structure ; a plate of metal passing round the hinder bar, but leaving room for the acus or tongue, and receiving the strap between its two extremities. The whole was then made fast by means of rivets, passing through the two folds of metal and one of leather. These were usually from two to five in number; but not unfrequently a single one sufficed. This metallic strap is frequently called a "shank," but it is here denominated an " attachment."

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Figure 8 represents a buckle of this kind with a shank or attachment pierced and ornamented. It is of the larger kind, such as usually decorated the dresses of men; and its material is brass. The buckle and shank appear to be of one continuous piece. The next example is also elaborately ornamented; with a small semi-circular buckle which again appears to be of the same piece with the attachment. Figure 10 is from Chessell in the Isle of Wight, and con-



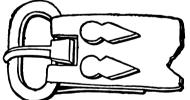


9. Do. from Barfriston Down.

and other parts of the south of England, such buckles are very numerous; as may be seen in the illustrations appended to any of the interesting volumes which treat of such discoveries. They are also found in

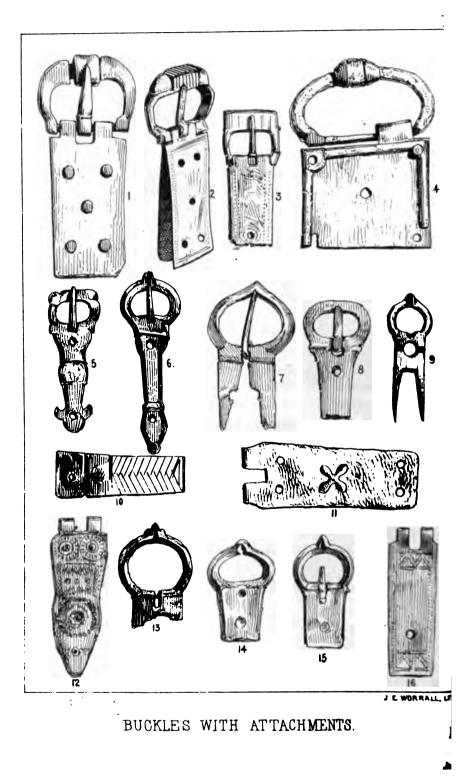
tains upon its shank two ornaments, bearing a rude resemblance to the soles of shoes. From the frequent occurrence of small metallic plates of the same size and shape, with rivet holes, it has been supposed that these plates were riveted to the belt, as uniform ornaments. In this case, the attachment is a separate piece of doubled metal. The buckle represented in number 11 is very peculiar, as the buckle itself is of iron, but the tongue and attachment are of brass.

In the Anglo Saxon graves of Kent



10. From Chessell, Iale of Wight.









France, in Switzerland, in Germany, and probably elsewhere, so that their use appears to have been general. At the same time, we find them on ancient pictures and monumental effigies, showing the precise mode

in which they were employed. The Trumpington brass exhibits a beautiful example of the attachment, in the guige which supports the shield ; and the sword-belt of Fitz Ralph in Pebmarsh Church, Essex, has a large metallic attachment at the buckle, moving on it but distinct from it.

Occasionally the metallic shank was fastened to metal, as

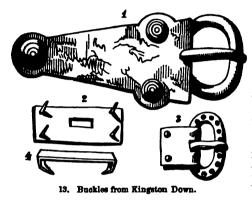


Nhanh support t

11.

on a breast-plate and back piece; in which case a strap with holes at both ends, but without any metal, served to connect them. The accompanying buckle, which is beautifully ornamented, appears to have been employed in this way. It is from the collection of Mr. L. Jewitt.

Description of Plate IV .- The first four examples show the method of fastening by attachments. They are all of brass. No. 1 still contains the five rivets by which it was originally **fastened**, it is coarse and strong. No. 2 exhibits more elegance; as in the former case, the tongue falls on a runner, and the shank or attachment, is decorated with faint dotted lines. No. 3 appears to have had but one rivet. No. 4 is peculiar in its construction. The attachment or shank instead of being double, bed a square border of metal which fell upon the leather,-the zivets passing through the four corners. A fifth rivet passed through the centre. Nos. 11, 12 and 16 are portions of waks or attachments, one side of the metal only remaining. They also are all of brass. No. 11 is rudely ornamented with a St. Andrew's cross stamped from within, and there are places for four rivets. No. 12 slightly resembles the "horse-head" pattern,



and is curiously ornamented. A more perfect example of the horse head pattern may be seen in No. 1 of the annexed cut. No. 3, which is also of brass, has an ornamented buckle, a single

The projections in No. 1 shank, and two rivet holes. are studs, such as have perished in other examples; and the cloth of the belt adhered, when it was found, to the under side of the attachment. No. 16 in the plate is ornamented with a dotted border, and indented lines forming spaces like equi-angular triangles. No. 10 probably represents a similar portion of an attachment, the projections for the tongue having been broken off. It is ornamented at its upper end, with a sort of herring-bone pattern. In some instances, the buckle and shank are in one solid piece, like those represented in cuts 8 and 9, and the latter appears to have been laid down upon the strap and rivetted to it; or else inserted between two folds of leather. Nos. 5 and 6, from their ornamental character, must have been laid upon the strap; but No. 8 which is thinner and plainer, was probably inserted between folds of leather. A curious kind of shank, of the same piece with the buckle, is exhibited in figures 7 and 9, which are forked at the end; and the tags or pendants of straps were occasionally forked in like manner. It has been observed that, as a general rule, the pendant, the buckle, and the ornamental stud on the leather, harmonized in character; and the three are figured by the Abbè Cochet, exhibiting uniformity in design; but the rule was not without exceptions. Nos. 13, 14 and 15 are



backles of lead, the shank in each case being of a piece with the buckle, and forming a sort of case into which the leather was inserted. It could not have withstood a heavy strain.

### III. DOUBLE BUCKLES.

These constitute only another variety ; and their character may be seen from the first six examples on Plate V. No. 1 is large and strong, though elegant in form; and, as in numerous other cases, the outer rim is stronger than the crosshar on which the acus worked It is of a twisted or rope pettern ; and may possibly have served as a species of clasp. No. 2 is a fragment, but when perfect it has been very elegant, with floreated extremities at the cross-bar, and at the sides of the knob on which the acus falls. No. 3 is crown-shaped, with shoulders on the cross-bar to retain the acus in its place; but it is not a double buckle in the ordinary sense of the term, as the two sides are not symmetrical. The end of the strap passed through the upper opening, and was pierced by the acus; after which it would be passed through the lower opening, and lie under the end of the strap which was attached to the buckle. No. 4 is not merely a double buckle, but one with a shank ; and like all the others in that row, it is narrower at the position of the cross-bar than either above or below. It hears a rule resemblance to the figure 8, and is almost identical in form with that which appears on the plain belt of Thomas de Greye, 1562, given among the Norfolk brasses. In that case, however, the buckle has two prongs. No. 5 is a further example of a double buckle with an stiachment ; and it is not unlikely that No. 2 may have had one also. But, in this case the leather strap appears to have been much narrower than the buckle, if we may judge from the sttachment, while in No. 4 it was broader. No. 6 is an irreguher ellipse; the cross-bar remains, but the acus is gone. No. 7, **Eke No. 8, is a double** buckle in appearance only. The acus fail only on one side, and the lower opening admitted of the insertion of the opposite end of the leather. There are two flanges raised up; and the acus in the shape of a T or St. Anthony's cross, plays within these. No. 8 is not a buckle, but a sort of connecting link between the buckle and the clasp. One end of the leather was inserted in the narrow rectangular space, and made fast round the bar, which is broken in the original. The remaining space was open for the insertion of a metallic attachment on the other end of the strap.

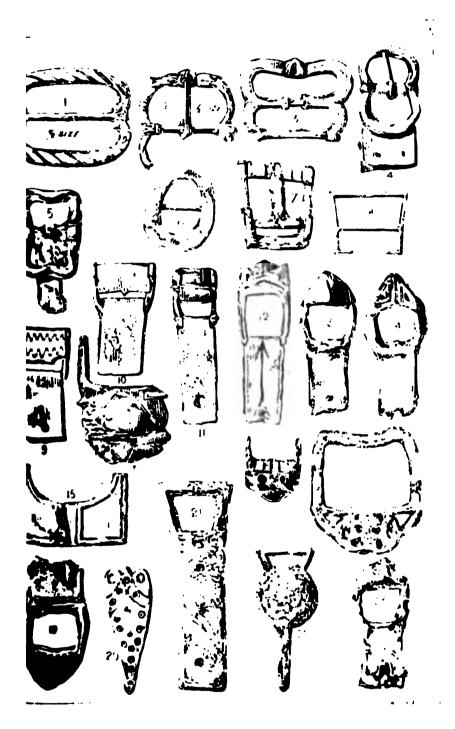
### IV. HASPS.

The fifteen objects which are designated briefly by the general term "Hasps," consist of four distinct classes; and a few words respecting each will be sufficient to make their respective qualities known.

Description of Plate V.—(1.) The three which are indicated by the numbers 9, 10, and 11, all possess shanks or attachments; so that they admit of being fastened to cloth or leather. It is obvious that they were intended for light work, as they are incapable of sustaining a great strain; but any of them would serve admirably for the suspension of a light object round the neck, say the bugle horn, dagger, or wood knife.



Their characteristic is, however, that each has a sort of lid, hinged round the front bar, and dropping down so as nearly to cover the whole space of the clasp. No. 10 appears to be decorated with a little point; and the lid in No. 11 is thicker than in the others, and consists of two rolls. A somewhat similar example was found a few years ago, during the repairs in the Temple Church. It was procured in or near a tomb; and it is represented in Mr. Richardson's work on the Temple Church, in which the ancient coffins, &c., are delineated. It will be observed that the little lid is hinged on the upper side in this case, instead of on the lower



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side, as in the examples given in Plate V. It is supposed that fastenings of this kind required to be undone rapidly, and that the knot of a cord, or a thickened portion of a strap, passed up and kept the lid closed, merely by the weight resting on it. The knot could be passed through when the lid was raised, but not otherwise. In one of the plates not given here, there is an attempt to show the way in which it was probably used.

(2.) Nos. 12 and 21 are brass or bronze hasps with shanks or attachments: Nos. 13, 14, 19, 23, are lead ones with similar appendages. These are the only leaden objects delineated on this plate. None of the six appears to have been qualified to bear a severe strain; for lead is a yielding material, and except in the case of 21, none of them had more than a single rivet. The four that are of lead, and No. 21 are each cast in a single piece; in No. 12, the shank revolves on the hinder bar of the clasp. All the lead ones and one of the brass ones, are very broad and strong at the point or front bar; and two of the lead ones, 14 and 19, exhibit a slight attempt at ornamentation. On the shank of No. 12 is an arrow; and on that of 21, there is a sort of double curve.

(3) Nes. 15, 16, 17, and 18 are hasps but without shanks; and all of them exhibit the characteristic just noticed, i.e., great breadth and strength at the extremity or front bar. In the four examples, this metallic protuberance assumes four different forms. In the first (15), it is plain with painelled space, which have an intermediate space as if for the tengue of a buckle; in the second (16), it assumes a somewhat more chlorate ornamentation; in the third (17), we have something like a cat's head; and in the fourth (18), with some partial pitting there is a little triangular open work.

(4) Nos. 20 and 22 constitute a class of themselves; and both afford facilities for being attached to leather. No. 20 he two rivet-holes, and appears to have been ornament d

with fifteen small circles each having a central dot, the whole rudely resembling a peacock's tail. One or two of these, which symmetry would require to be present, appear to have been obliterated. The hook may have been used to take hold of a hasp; or to be inserted in cloth for the purpose of sustaining it. The other hook, 22, affords space for the insertion of leather; and its point is more fully developed, showing sufficient strength to work on metal, or in a hole of leather or cloth. Instead of the ornamentation by circles, it presents us with a circular space having a wreathed band at its outer margin, and a sort of double rose in the centre. If we allow this fact to have its usual significance, the object must be assumed to be more modern than the commencement of the reign of Henry VIII.

#### V. TAGS OR PENDANTS.

In modern times, a strap usually terminates in its own leather, which is supposed to be sufficiently substantial; though the belts of some of our Volunteers exhibit a return to the pendant or tag. This was a piece of metal which sometimes lay on the upper side of the leather, at the end of the strap, fastened by one or more rivets ; but more frequently it was double, and the leather was inserted between its folds. Among the Cheshire antiquities many of these objects occur; so many that they suggest the belief that very few straps were without them; and they are also of frequent occurrence in the mediæval graves of almost every country in Europe.

The accompanying illustration shows a plain tag of an early date, and will serve to give an idea of their general character. It is from Mr. Jewitt's collection. The simple pendant, merely seeming to give weight and consistency to the strap, may be seen on the brass of Thomas Statham, in Morley Church, Derbyshire, of the date 1470, and that of Roger Bothe, in Sawley, 1478. In both these it appears



15. Plain

ribbed down the centre. The one on the sword hilt of





16. Thos. Statham, Moriey Church, 1470.

17. Roger Bothe, Sawley Church, 1478.

John D'Aubernon, 1277, appears to be plain, with the exception of a knob at its extremity. In the Trumpington brass, 1287, we notice a degree of harmony or uniformity between the shank of the buckle and the pendant on the guige of the shield; and the same may be said of the metal on the guige of D'Aubernon. In some cases, which it is unnecessary to notice in detail, the two resembled each other, but were not identical in pattern; and in some the tag or pendant merely bordered

the leather, its two extremities not being connected by an intermediate straight line. One on the brass of Richard Kniveton, illustrates both peculiarities. In the Special Exhibition of Works of Art at the South Kensington Museum, 1862, were two terminations of belts of the 13th contury, both the property of John Webb, Esq. One represents the Annunciation in high relief, under a canopy, and another, the Adoration of the Magi.\*



Occasionally the pendant was very large, so that it could only be passed through a long buckle diagonally; and some-

· Catalogue, p. 13.

times it was so large that it could not be passed at all, and it must have been necessary to throw the circuit of the belt over the head and under the arms. In the ordinary representations of the Garter, the pendant is so broad and floreated that it could not pass through the buckle in connection with which it is represented; but painters and engravers do not think of this, or perhaps do not understand that this is necessary in the original. Formerly, either the pendant was narrowed to the exact width of the strap, as in a beautiful example of the 14th century, in the British Museum;\* or the buckle was much wider than the strap, as in the garter of Sir Thomas Bullen, the father-in-law of King Henry VIII.<sup>+</sup>

In the annexed example, there are metal tassels attached to the pendant; but as these evidently moved over each other, the whole could have been passed through the buckle without difficulty.



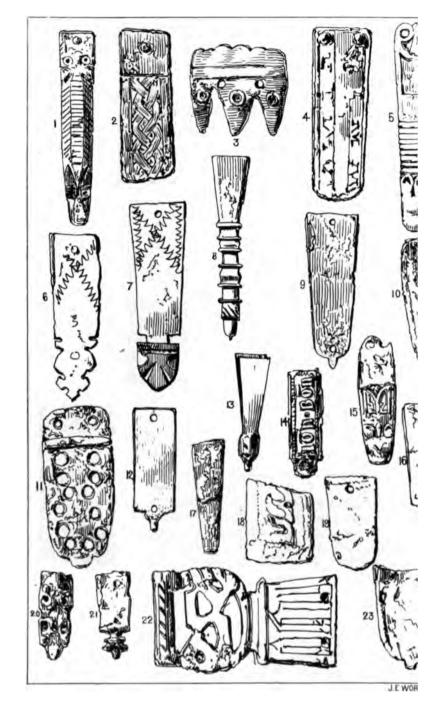
#### 19. Roger Bothe, Sawley Church, 1467.

Buckles and pendants of silver, in precisely equal numbers, are mentioned in the expenses of the wardrobe of Edward III, showing that the two went together, the one being regarded as almost equally necessary with the other.

lxij boucles<sup>‡</sup> de arg<sup>i</sup>—lxij pendantes de arg<sup>i</sup>; ccciiij.xij pendantes<sup>¶</sup> arg<sup>i</sup>—ccciiij.xij boucles arg<sup>i</sup>

• Archæologia, xxxi, 141. + On his monumental brass in Hever, Kent. ‡ Archæologia, xxxi, 33. || *Ibid*, p. 55.

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TAGS, OR STRAP ENDS.



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What the pendant was to the strap, the aglet or tag was to the cord or lace. Hence we find frequent mention of these; and indeed small pieces of metal in general were called aglets. The term survives in Yorkshire and Cumberland\* as a provincial word, and probably in other districts also. It originally denoted the point! merely, though Pynson, quoted by Mr. Way, properly remarks that the term was sometimes applied to the whole lace. Hence, in all probability, the term "eilet-hole" or "oilet-hole," that is the aglet hole or opening for the lace; though, from similarity of form, it has been derived from the French words for needle and a little eye.:

ix agulettz de cupro [[[here the tags only.]]

C \_ \_ \_

ciiij.xij aguletti de serico cum punctis argi§ [here the laces.]

**Description of Plate VI.**—The pendants figured here are all of brass or bronze, except 14, 21 and 23, which are of lead. Figs. 1 and 5 correspond generally, but their ornamentation is different. Each has a sort of rude head at top, the rivet holes serving for eyes. Fig. 2 is remarkable on account of the fretwork decoration which it exhibits, and also on account

Archaeolog. xxxi, 39. § Ib. p. 55.

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<sup>•</sup> Hunter's Hallanishire Glossary; Dickinson's Words and Phrases of Cumberland.

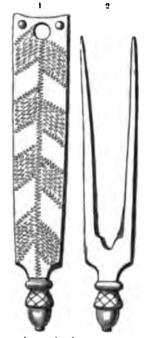
<sup>• &</sup>quot;Agglet, or an aglet to lare with the day, deux, deuks [-Promptorium Parenlorum, "Agglet of a lare or point, for, [-Palogr, "The tag of a lare or of the points "formerly used in dress,"-Haliavill. Sometimes it is " Yight, the metalled end " of a boot lare, "-Inchinam.

<sup>&</sup>quot;"Holes not larger than would be made by the puncture of a needle; (') "perhaps a corruption of the French word for needle,"—Hunter, "(Edict of sel, "F, an Eye."—Basley.

of the plain square at one end.\* Fig. 3 appears to have been attached with two rivets, the points being upward ; and fig. 4 is divided into three parts by lines nearly parallel. It also appears to have been lettered. On figs. 6 and 7 there is an intersection of wavy lines; and the latter is terminated by a very ugly knob. Fig. 8 narrows down to a series of seven rings, and is terminated by an acorn-shaped point. Fig. 9, which generally resembles 12 and 16, contains a portion of the leather between the metal plates. Figs. 10, 13, 15 and 17, explain themselves sufficiently. Figs. 14, 21 and 23 are of lead; and the first of these may possibly have been a buckle shank. It contains the words ION BON. Fig. 18 is a fragment, the precise use of which it is difficult to determine; and 19 is a plain example of a common type. Fig. 11 is in some respects the most remarkable of all; as, in addition to the two rivet holes at the top, for attachment to the strap, it contains twelve other perforations, apparently made without order. It is clear, however, that they exist in pairs, as if for hooking on to points or to the prongs of a buckle. After two sets of wider holes comes a third of closer ones. The cut No. 26 given hereafter, shows the pendant of a lady's belt pierced with single holes. Fig. 20, which is not very interesting in form, appears to bear some relation to fig. 11. Fig. 22, though obviously the termination of a strap, had a special purpose to serve. It is a portion of a belt hasp; with the letter S in open work, and IHC (apparently) inscribed.

<sup>•</sup> It has been ingeniously suggested by Mr. French, of Bolton, that many of the early crosses in Britain were made of wicker-work, no doubt filled with sand, or some such substance, to give them solidity; and he has had several beautiful ones constructed in illustration of this theory. If the idea be correct, it supplies a reason for the interlaced patterns in imitation of basket-work, which we afterwards find on stone crosses; and the same style of ornamentation was applied to minute objects. In like manner, Sir James Hall, Bart., traced many of the forms of Gothic architecture to the imitations of wicker-work, of which the earliest Christian Churches in this country were constructed.

Under the head of Buckles, has been noticed the class with forked extremity, and the same peculiarity existed in pendants. One, supposed to be a fork, was found by Faussett in a grave at Osengal and another at Gilton. But the annexed beautiful example, from the valuable collection of Mr. Roach Smith, shows the purpose which the object served, and the forked pendant is here giv n with and without its metal casing. Fig. 1 shows the tag in its corn plete state, and Fig. 2 the Cark d portion only. This example was found in London.



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## ML STRAF ORNAMENTAL

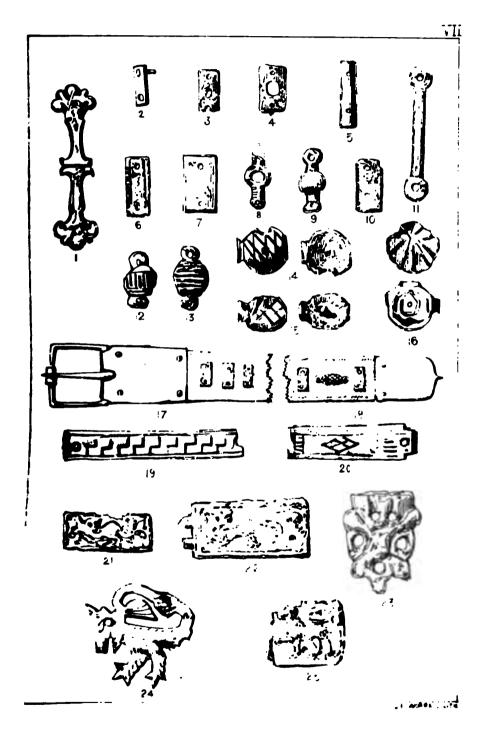
The common stakled on strip or aments on rated of study, which were usually if yellow rated rated is metimes the nail portion which potential data head in case of more the head being of brassion in a other alloy the pp  $\mathbf{r}$ . This stars alluded to, perhaps in sufficient detail, under the second head of belts or girllis, in the above instead of rate rate of a more general kink, which are care to be been ally all the transmission mentation. So also on we can be there will not the transmission general kink, which are care at each or the transmission and between a more many construction by a data traps. But there is a more many cound special hashead so is constal character is indicated in Plate VII, for which a towing its of explanation are necessary. These levels the real loss into several sets (legical the longer bars) with an allow proces like sections of a split read or quill, 0, these protabenant in

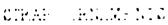
the middle, (4) those boss shaped, (5) those shell shaped, (6) ornamented plates, (7) enamelled pieces, (8) rude animal forms, and (9) miscellaneous.

Description of Plate VII.-(1.) Fig. 1 is one of the bars which crossed the Knightly belt at intervals; between which there may have been placed studs or little plates of metal, or a rosette surrounding the hole for the tongue of the buckle. One of nearly the same size, but not exceeding this in beauty of form, is engraved in Skelton's volumes, Plate XIV, A.D. 1360; but it is thick in the middle, with a circular perforation, and narrows to the rivet holes at the ends. Fig. 11 appears to be of the same general character, but unusually plain; it is flattened at the ends, in order to give sufficient space for the rivets. It appears to be in imitation of the handle of a shield, an example of which is here engraved to admit of 21. Handle of the comparison of forms. a Shield.

(2.) The small pieces of metal like 2, 3, 4, 5, 6, 7 and 10, are found in large numbers, sometimes with portions of leather adhering. In many instances, as in 2 and 4, the rivets still remain; and from the uniformity of the objects, it is clear that they were used in sets. In the present instance, however, forms differing as widely as possible have been selected designedly. They are different in length, in breadth, and in ornamentation. Some like No. 4 may have reached across a narrow strap, while others may have decorated only its median line; some may have been placed close side by side. and others at intervals more or less wide. They are all convex above and concave below; and they appear to have been whole throughout, such openings as those in 3 or 4 being attributable to wear and tear. Figs. 17 and 18 serve to indicate the mode of their use, and how objects like 12 and 13 might be applied. They also show how the pendant and

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buckle-shank-the latter often as a separate plate-appeared when in use.

(3.) Figs. 8 and 9 show an enlargement in the middle; and these were evidently placed at intervals either across or longitudinally. The former presents a circular orifice, but that may be only by the wearing away of the protuberance, as in the case of bosses on book covers, the section of any spheroid whether egg shaped or onion shaped, being circular, if made across its axis.

(4.) In figs. 12 and 13, the principal part is the protuberance, the rivet holes being small in comparison. Both are ornamented, but in different ways; and it is easy to see that they might have been employed on various parts of the equipment, and with great effect.

(5. Figs. 14, 15, 16, represent a sort of somestuds, of shell like pattern. The lower side of each is shown, and it appears that each was attached by a single river. If No. 16 it still remains, including a small perton of the lowber, and a thin plate of metal outside of that, which was "grapped" by the head of the rivet.

(6.) The two narrow plates, figs: 10 and 20, appear to have been used for decision; the latter certainly at the end of a strap. It has been surgested that it

was the shank of a backle r but it was in reprobably part of a basis, the ball is our a river hole, as it scenis ill adapt 1 for the tongue of a buckle. The other does not appear to have served any stole peoples, but it is difficult to apply with cortainly, as it is broken off at one of the river body. The annexed object, the process use of which

is unknown, was probably of other or monorth



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of a similar kind. The 19 as a valid with a soluble pattern between two marginal lines, the 20 has two similar



marginal lines unequally distant from the edges; with some simple tooling near their extremities, and a rhombus or lozenge divided into four equal and similar ones, by parallel lines bisecting the sides.

(7.) Figs. 21 and 22 are enamelled, and show the colours with which they were originally embellished. They have, however, served different purposes, as the former is merely a strap ornament, and the latter an attachment to a buckle. The former represents a dragon-like animal with a trefoil tail, seeking what it may devour; the latter contains a fox apparently, in the attitude which heralds call passant reguardant.

(8.) Fig. 25 contains a more graceful animal, and probably the metal served only for a strap-ornament. Fig. 24, stamped out of the metal, possesses the quality of not being the likeness of any known creature; but evidently it was designed to be suggestive. The eye hole served for one rivet, the other was where the hinder legs are broken off.

(9.) Fig. 23 constitutes a class by itself. It may possibly have served the purpose of a pierced tag like fig. 2 plate VI; or it may have been merely a leather ornament of a somewhat rustic pattern. It has been placed here on the latter supposition.

### VII. BELTS OR GIRDLES.

1. Introduction.—In the days when men fought with sword and spear, and when their valorous deeds were not concealed from their fellows by wreaths of gunpowder smoke, they were unusually fond of military display. The defensive armour afforded wide scope for this, in the helmet, the breastplate, the shield, the greaves, and various minor pieces; but even when armour had been partially laid aside, one object still remained. This was the belt or girdle. It gave an imposing appearance to the man of good figure, or who desired display; it defended the soldier in a vital part; and

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even to the citizen or franklin it was indispensable in the girding and fastening of his garments. From the earliest times, therefore, we read of the girdle; and the earliest military accounts, both in poetry and prose, represent it as very elegant.

2. Material.—We are to assume that the material was generally leather or skin, except when it consisted of some strong textile fabrie. It therefore admitted of decoration by embroidery; and, by the better class of people, this was pursued as a domestic occupation. In the last chapter of the Book of Proverbs, we have a picture of domestic life among the Hebrews, and we find the virtuous woman, or good wife, not only superintending the spinning and the weaving in her household, but providing girdles for sale. When embroidered with gold or silver threads, they had no doubt the appearance of the gold helts worn at present by officers in the army, or the silver ones common among our county forces of militua and volunteers. Hence, gold and silver belts are currently spoken of. Some are said to be of beaten gold ; and, no doubt, they were covered, as we have seen, with portions of metal.

It may suffice to notice a few of the allusions to material. The girdle was worn both by men and women, and the sexes seem to have vied with each other in their efforts after costliness and beauty. In the monumental brasses of the 15th century, for example, we find ladies' girdles, like that in Clippesby church, Norfolk, which is very massive and highly wrought, evidently metallic, slung bo sely about the waist, and with a long heavy pendent end. The girdles of ladies appear to have consisted frequently of links of metal.t gold or silver, with decorations intermediate. Sometimes they took the form of chains, and occasionally they consisted of elegant twisted cords, jewelled at intervals, with pendants at the extremities

<sup>•</sup> She maketh fine linen and selleth it, and deliver th guidles to the merchant. xxxi, 24.

<sup>+</sup> Fairholt's Costume in England, 1846, p. 507.

There is a lady's girdle, five feet long, of about the date 1460, in the possession of Octavius Morgan, Esq. It is thus described :---

"A lady's girdle or baldric, of crimson and gold brocade velvet, with rosettes of goldsmith's work enriched with enamel. The buckle and the pendant of silver gilt, chased with foliage in relief, and inlaid with niello-plaques and with armorial bearings, the escutcheon on the pendant being that of the family Malatesta of Rimini and Cresena."•

An old poet describes a lady with a splendid girdle of beaten gold, embellished with rubies and emeralds "about her middle "small;" and the Scottish ballad of *Johnnie Armstrang*, represents a gold embroidered girdle as among the rich objects which he displayed.

> John wore a girdle about his middle, Embroidered ower wi' burning gold, Bespangled wi' the same metal, Maist beautiful was to behold.

Chaucer also describes a priest, with

Change of clothing every day,

With golden girdles great and small ;

As boist'rous as is bear at bay,

All such falsehed mote nedis fal.

In the old ballad of Young Bondwell, Dame Essels is thus spoken of—

She dressed hersel' in robes o' green, Her maids in robes so fair; Wi' gowden girdles round their middles Sae costly, rich and rare.

No doubt, there may have been a little poetic exaggeration; and also, in the Apocalypse there is a meaning in the metaphor, the seven angels "having their breasts girded with golden girdles."† In the Visions of St. Patrick's Purgatory, written in the beginning of the fifteenth century, the writer represents many of the rich and gay as suffering torment, and among them "men with gay girdles of silver "and gold." This is indirect evidence that such articles

<sup>•</sup> Catalogue of Special Exhibition at South Kensington, p. 65. + Rev. xiv. 6.



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were not uncommon at the time; but we have, of course, the direct evidence in history and illustration. Meyrick, quoting Knighton, under the date 1348, states that ladies attended tournaments on horseback with girdles handsomely ornamented with gold and silver. If the precious metals were so common, we may reasonably conclude that girdles decorated with brass and bronze were much more common.

The girdles of the humbler classes were of undressed skin, or plain leather, or occasionally, a more rope. In the delineations of ancient\* Etruscan attire, the funicular cincture is depicted; and we find it represented as occasionally worn among the wealthy in our own country. The girdle of Paul, with which Agabus bound his hands and feet,<sup>4</sup> must have been of some soft material; probably like the sash recently worn by military officers, which has been known to serve the purpose of a rope at an extempore execution.

The inventory of a trader's widow in Salford, 1588, contains the following entry---

2 Sealskyn gyrdles af j<sup>ser</sup> !

John the Baptist is represented as having a leathern girdle about his loins, if and so had the prophet Elijah, § both of whom taught and practised humility. Girdles of a still bumbler kind, viz., of sackcloth, were used in times of mourning : and in the Old Testament, numerous illustrations of the practice occur. It would appear as if the embroidery sometimes took place on leather instead of cloth, for an old poet, comparing " the wyld cat to the brownish beaver," says

> Restoratives and costly curious felts. Are made of them, and rich inductively bolts.

• See Hope's Costumes of the Ancients, and Wordout in Fairbolt, p. 123 + Acts xxi, 11.

\* Aston's Manchester Guide, quoted in the Shuttleworth Accounts, Matthew, in: 4. § 2 Kings, i. 8. C Barnfield's Affectionate Shepherd. 3. Ornamentation. [STUDS.]—Ornamentation by means of studs was extremely common, especially in the girdles of men. We see its use among the Persians, as in the beautiful and well-known mosaic at Pompeii, the head stalls of the horses on the side of Darius are all set thick with studs. We also trace the use of such metallic objects in the representations of Scythian\* and Roman belts, which have come down to us. In the Prophecy of Capys, studded† and gemmed belts are represented as forming part of the display in a Roman triumph.

> The helmets gay with plumage Torn from the pheasants' wings, The belts set thick with starry gems That shone on Indian kings.

Of course, they were common in Anglo-Saxon, and more recent times. Indeed it may be noticed that both the beltmaker and the boss-maker were separate trades or professions, at a time when artizans divided their labours very minutely. A few examples may be mentioned. Clovis I, in 1100, is represented with a studded belt, 1 and so is our own Richard of the Lion heart. Sir Robert de Bures, 1802, in Aston Church, Suffolk, has a studded belt; and that of Edward II, on the screen in York Minster, is covered with small studs. The effigy of King John, 1440, is represented with a splendidly studded belt ;§ and both the sword-belt and the hip-belt of Humphrey Strafford, 1480, were similarly ornamented. In the Swetenham brass of the 15th century, the breast-plate is crossed by a studded sword-belt; and that of Malony, of Woodford, ¶ exhibits not only a studded belt but studded armour. In the early part of the 17th century, the practice was not quite abandoned, for Lord William Howard, of

<sup>•</sup> Meyrick, Pl. xiii. + Macaulay's Lays of Ancient Rome.

t Shaw's Dresses and Decorations of the Middle Ages, Vol. I.

<sup>||</sup> Carter's Anot. Sculp. and Painting, Vol. II. § Shaw, Vol. II.

T Hudson's Mon. Brasses of Northamptonshire.

Neworth, was known to the Borderers by the sobriquet of "Belted Will."

> His Billos blade, by Marchmen felt. Hung in a broad and studded belt;

Hence, in rule phrase, the Borderers still, Call'd noble Howard "Belted Will,".

Studs were also common on the guige which supported the shield, and on the shoulder-belt, for whatever purposes it was used. Hence, we read, in Drayton's Polyalbian, the description of Robin Hood, and other forest outlaws-

> Their bauldricks set with studs, athwart their shoulders east, To which, under their arms, their sheafs were buckled fast.

In the Hastings brass in Elsing church, Norfolk, the swordbelt is beautifully studded ; † and when the steel gloves came to have separate fingers, it was not unusual for each finger to be emamented and strengthened with one or more studs.

In the Three Early English Metrical Romances already referred to, the dress of a lady is thus described-

> Hir gide that was glorious was of a crosse greene : Her belte was of blenket, with briddus follbold, Beten with besandus, bocult ful better ;

About the same time studs appear in the military belt, as may be seen in the brass of De Bacon in Gorleston Church, Suffolk; and several are shewn in the illustrations of Strutt and others. In one of the 14th century, a belt has two rows of stude like broad buttons along its outer margins,; while **snother** is studded in the centre  $\delta$ . In the helt of a person of distinction of the 15th century, the study occur in sets of three on the shoulder-belt, and the buttons in clusters of three down

<sup>\*</sup> Scout's Logis fithe Last Marstrell, v. 161

<sup>•</sup> Carter's Anet. Sculpture and Trenticip of a Treatman's Brassi-

<sup>?</sup> Her pown that was glorious was of a grass greene clour, her helt was of s could, ornamented with birds; inlaid with besau is screen a paces of notal. the the coins of Byzantinna), and appropriately backled. f Strutt's Dress and Habits, Pl. Ixxvi.

<sup>(</sup> D., Ph. ixxxv.

the front of the robe.\* A belt of the early part of this century was preserved in Mr. Roach Smith's collection, stamped in leather, with circlets containing the SS. of Henry IV, and ornamented also with metal bosses. It was supposed that girdles of this kind were manufactured at Cadiz.† In the monumental slab of Johan Graaf v. Wertheim, 1407, the stude on the hipbelt are very prominent, and seem like large knobs of metal connected by intervening links.<sup>‡</sup> Mr. Planche gives an engraving of a lady from a manuscript in the Harleian collection. She wears a hip-belt apparently studded, from which a gypciere or purse is pendent. Another example is given of a lady with a studded belt, in Strutt, plate exix; and in Meyrick may be seen several belts covered with bosses or studs. John de Garlande, in the beginning of the 13th century, describes the girdle-makers of his time, as having before them girdles of white, black, and red, well studded and barred.

Even on smaller straps studs were common. Thus the mountings of the "Bruce Horn," now probably more than five centuries old, show a belt "studded with enamelled plates, with the arms of the Earls of Moray;" and the belt of black silk attached to the "Tutbury Horn," is mounted in silver, having a silver shield with arms at a junction in the belt. §

[OTHER ORNAMENTS.]—In the reign of Edward III, ornamentation with gold and silver, no doubt laid on in thin plates of various forms, was common; and in the time of Henry IV, as well as in that of his predecessor, it was necessary to prohibit the gorgeousness of apparel. Thus, in 1403, it was enacted "that no person should use . . . girdles . . . decorated with silver, nor any other trappings of silver, unless possessed of " a certain yearly income, or a certain amount of

<sup>•</sup> Strutt's Dress and Habits, pl. cix. + Fairholt's Costume, p. 508. ; Boutell, p. 193, from Hefner's Costume du Moyen Age Chretien. || History of British Costume, p. 210.

<sup>§</sup> Catalogue of the Special Exhibition at South Kensington, p. 18.

sods and chattels. In the monumental brass of Margaret hewt, of Suffolk, the girdle and other parts of the dress, are momented with jewels, and these were **\***ommon at a much rlier period. In Archbishop Alfric's vocabulary of the 10th mary, the following words, and their explanations occur.\* Autors, we class, set strophone, and sets cell syndel, cell aginamed gerdel. In an old ballad, Johnnie o' Cocklesmuir who is also miticonally called by other names, is thus described---

> The sark that was o' Johnnie's back, Was o' the cambrie fine ; The belt that was aroun' his middle Wi' pearlines it did shine.

In the Ancren Rivole, or "Regulae Inclusarum" of the the century, the persons devoted to God are advised thus; Have neither ring, nor brooch, nor ornamented girdle, (ne gurdel i-membred), nor gloves, nor any such thing that is not proper for you to have."; In the Inventorium Sepulrais are representations of several beautiful pieces of nal by which belts were decorated. The military belt was nt highly ornamented, and the specimens which we possess hibit great varieties, and a remarkable amount of skill and sign. In the reign of Edward II, it was often ornamented **diver or precious** stones, and little plates of silver were ensionally placed underneath the rivets of the girdle.§ The urd-belt of Sir Robert de Septyans is ornamented with millic rosettes, and that of Fitz Ralph with alternate singes and bars, and it was not unusual for little bars of nal, gold or silver, to separate the ornaments or portions embroidery. The sword-belt of Sir Roger de Trumpington emamented with plain bars. In the Romaunt of the Rose, moer describes the girdle of Richesse thus--

Mayer's Vocabularies, p. 40.
+ Dixon's Scottish Ballads, p. 78. **; Camden Soc. Edition**, pp. 420-421, Pp. 28-29, and Pl. viii.
§ Meyrick, Vol. I, p. 173.

Richesse a girdle had upon, The bokell of it was of ston;

The barres were of gold full fine, Upon a tissue of sattine,

Full heavie, great, and nothing light, In everiche was a besaunt wight.

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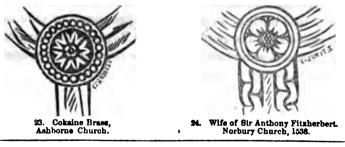
A Sergeant at Law is thus described,

Every statute coude he plaine by rote ; He rode but homely in a medlee cote. Girt with a seint\* of silk with barres smale; Of his array, tell I no lenger tale

The Carpenter's Wife in the Millere's Tale, is also represented as habited in the following way-

A seint she wered, barred all of silk.

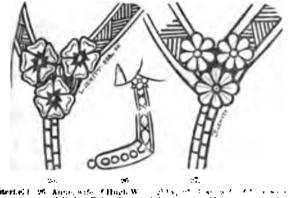
4. Mode of Fastening.—The girdle of the Ancient British Soldier, as shewn on Roman bas-reliefs, was fastened by a square border of metal, like the clasp or rim of a buckle; but the buckle itself, which was known to the Romans, appears upon very early examples. In the 14th century, especially towards its close, the buckle begins to disappear and to be superseded by a morse or clasp; and the bawdrick was often fastened by this, as it hung horizontally round the person. Sometimes the morse or clasp was superseded by what appears to be a central stud, not unlike those which are in use in our own day. Two examples are here presented, from brasses at Ashborne and Norbury.



\* Cincture or girdle.

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The belts of Indies had not unfrequently three golden resettes at the point of junction in front: but this was at a later period. The brasses of two ladies called Tilghman.• in Snodland Church, Kent, 1541, exhibit that mode of fastening: and an elegant example appears in Sefton Church, Laneashire, on the brass of Margaret Bulkelay, (1529.) daughter of Richard Molyneux. Other examples may be seen in Chesterfield and Morley Churches, Derbyshire.



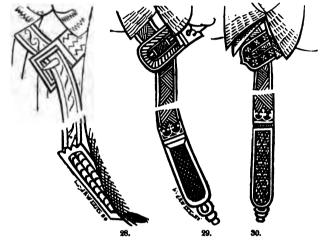
25. Chesterfield 26 Anne, wife CHurch W. (2008) and D. S. W. (2008) and S. Chesterfield and M. (2008) and M. (2

Occasionally the non-metallic delts of holes were fastened by long narrow buckles, som times four or five in hes in length i and the belt was not penetrated by the tengue of the buckle, but passed either under it end over the still speciever it and under the sides. Examples are non-rousd but it may be sufficient to mention the Curzen briss in Kedleston Church, Derbyshire, and that of Anne, der dater of John Babington, and wife of Richard Reff star of Lee in Ash ever Church, 1507. In both of these examples, the belt passes under the two sides of the long broad her kley and ever the scus. This is the case also with two helts in the brains soft

+ Oxford Brisser, p. 155.

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ladies of the family of Blackwall, in Wirksworth Church.



28. Wife of Bobt. Eyre, Hathersage 29. Maud, wife of Thos. Blackwell, 30. Blackwall Brass, Church, 1656. Wirksworth Church, 1596. Wirksworth Church

In Strutt's Illustrations are two ladies of rank of the 15th and 16th centuries, one of whom wears the buckle under the right arm,\* while the other has it almost directly behind, but the usual position was in front. In the Cotman brasses, Thomas de Greye, who died 1562, is represented with a belt consisting of a narrow strip of plain leather, and fastened by a long narrow double buckle with two prongs.

5. How Worn.—The belts of the Ancients appear to have been worn very high up, so that the wearer appeared short waisted. This will be evident from any representation of a Roman in complete armour; and the fact is illustrative of the expression in the Revelation, "girt about the paps "with a golden girdle."† In short it was worn round the mammæ, or a little below the armpits; but the natural place for it was round the waist proper, and hence this part of the

\* Strutt's Dress and Habits, Pl. exxiii. + Rev., i. 13.

**body was frequently known by the name "girdlestead." Thus** Stubbs says in the *Anatomy of Abuses*, "some short **"searcely reaching to the girdlestead or waste, and some to the "knee."** The following is from Chaucer's description of Mirth, in the *Romaunt of the Rose*—

As round as apple was his face, Full roddle and white in every place His nose by measure wrought full right, Crispe was his haire and eke full bright; His shouldres of a large brede. And smallish in the girdlestede: He seemed like a purtrenture.

The girdle when so worn was sometimes called a "lumbare," which encircled the loins, and accordingly in a Nominale of the 15th century, the term "*Hoc lumbare*" is explained by "a brek-belt." The bandrick or splendid girdle frequently alluded to, was worn below the waist, or encircling the hips, and was usually quite distinct from the sword belt, which was worn round the waist or slung over the shoulder.

6. Articles suspended.—Girdles are mentioned in 1293, but they appear to have been of an inferior sort —" Corigiis emptis "pro Thoma et Henrico iiij""† In the graves of females in Kent, small chains or portions of chains have been frequently found, usually oxidised into a solid mass. They extended in two lines from near the waist to the knees of the skeletons, and at the bottom were found several minute objects, like those appended to a lady's modern chatellaine.<sup>‡</sup> There can be little doubt that these were suspended from the girdle after the manner that we find common in mediaval pictures and illustrations. Occasionally one or two tasselled chains were

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<sup>• &</sup>quot;Girdlestend, the waist or similar place. -Bailey's Dictionary. "The "Girdlestend, cinctura." - Flowing.

<sup>•</sup> Expenses of John of Probant and Thomas and Henry of Lancaster ; Inventorium Sepulchrale, p. xxvin

pendent from the girdle, or at the bottom was hung a pomander box or ornament.

In the days of the gypciere or pouch, which seems likely to be re-introduced among railway travellers, it was suspended from the belt or girdle. So also was the purse, which was usually smaller in size; but the terms were not always used with discrimination. Thus Chaucer, when describing the Carpenter's Wife, cays,

By hire girdel heng a purse of lether,

Tasseled with silk and perled with latoun.

The Greek word *zona*, which in our Authorized version of the Scriptures is sometimes translated "purse," is rendered more literally in the older versions. Thus,

In Matt. x, 9; "Nile ye weeld [do not ye possess] gold ne siluer ne money in youre girdlis," *Wiclif* 1380; "nor brasse yn youre gerdels," *Tyndale* 1534; and *Geneva Ed.* 1557.

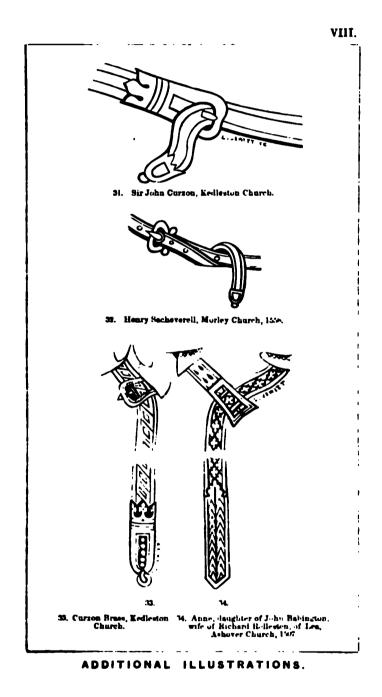
Mark vi, 8, . . . "not a scrippe, ne breed nether money in the girdil" Wiclif.

Another word, translated "purse" in the Authorized version, is rendered "sachil" by Wiclif, and "wallet" by Tyndale and Cranmer, and in the Geneva version. The pouch was worn by both rich and poor; and it was ornamented and unornamented according to circumstances. In the Shuttleworth Accounts, 1621, is an entry defining the scrip,—

"Scripe, a lether satchell, for the servantes use, viij<sup>d</sup>" From the facility with which it could be removed from the girdle arose the occupation of the "cut-purse," who is represented by the pick-pocket or garotter of our own period.

The dagger was also pendent from the girdles of both civil and military persons. In the flourishing period of chivalry it hung on the right side, and the sword on the left; but in the woodcuts given in *Foxe's Book of Martyrs*, 1641, several common Englishmen are shewn with the dagger placed behind.

Persons of religious habits suspended a rosary from the belt, and among the monumental brasses several beautiful



• . . • ones are shewn. The rosary usually consisted of one or more decades, the tenth or eleventh bead being larger than the others. The rosaries of men rarely exhibit more than one decade; but those of ladies generally shew three or sometimes four or five. Rosaries ceased to be worn after the Beformation.

The monuments of clergy, lawyers and seriveners, sometimes shew their instruments of office, namely, the penner and inkhorn. Their form may be seen in Gwillim p. 294; and the mode of suspension in the brass of William Curteys, Notary, 1490. This is the object which has caused so much misunderstanding in connection with the Borough seal of Liverpool.<sup>4</sup> The eagle of St. John the Evangelist, with the penner and ink-horn in its mouth, was represented on the original seal; but it is now transformed into a cormorant, with a branch of seaweed in its mouth.

From the girdle was also occasionally suspended a book, and the practice is alluded to in the O.P. of *Lusty Juventus*. Let your book at your girdle be ted.

Or else at your boson, that he may be spiril.

This was particularly convenient when books were bound in actual oak boards, strengthened with bosses, clasps and ranners; and when a chain was attached to the covers. In some instances the flap of leather was allowed to project over the margin of the covers, as in the case of a merebant's office books; and this which was called the "chemise," was sometimes so long as to admit of being tied in a knet at top or bottom. The girdle being passed round below this knot, the book was suspended from the waist as may be seen in Savage's Portrait of Bishop Latimer, who suffered in 1555.

<sup>•</sup> The original charter was cranted by king John, and the name John was written symbolically or otherwise, on the surface of the scal, at three distinct places. There was (1) the engle of St. John the Evangehist, (2) the star and question of St. John the Papirst, and (3) the word 10.418, not one of which crists at present.

7. Beltmakers and allied Trades.—Under this head, it may be almost sufficient to quote the explanations of the ancient vocabularies.

"Corigiarii (gurdelers) habent<sup>\*</sup> ante se zonas albas, nigras, "rubeas, bene membratas (ystodyd), ferro vel cupro (coper) "texta (kosis) stipata (ybarryd) argento."† A further explanation of the terms is given. "Corrigiarii dicuntur a corrigiis "quas faciunt. Zona tres habet significationes; in una "accipitur pro cingulo. Texta . . cingulum factum de serico "(*tissus*); stipata, id est fulta vel appodiata, Gallice *barré*." In an English Vocabulary of the 15th century, we find "*Hic lorimarius*, A<sup>co</sup> a gyrdylhar."‡ "A Girdler, zonarius;" "A Girdle with studs, cestus."|| "Bauldrier, or Baudrier, "Baudryeur or Baudroyeur, a leather dresser, a currier and "colourer of leather, also a maker of belts and baudricks."§ "Beltmaker, baudroyer."¶

Among the allied trades, we find the *Pluscularius* or Buckle-maker, from *pluscula*<sup>\*</sup> a buckle; the Bossetier or bossmaker; and the *Firmacularius*, that is the fermail or claspmaker. John de Garlande says, that the buckle-makers are rich, by their buckles, and tongues, and vices, and files, and horse-bridles. Of the Boss-maker, we read "Bossetier a bosse-maker" *Cotg.*, and "a Bosse-maker, bossetier," *Flem*. The *Firmacularius*<sup>†</sup> or clasp-maker is said to have before him, clasps of lead and pewter, as well as of iron, copper and steel; he has also clasps of brass very beautiful.

+ Both firmaculum and monile were used to denote a clasp, but the former indicated a more elegant kind. The less elegant materials are mentioned here, though the workman took his name from the former term.

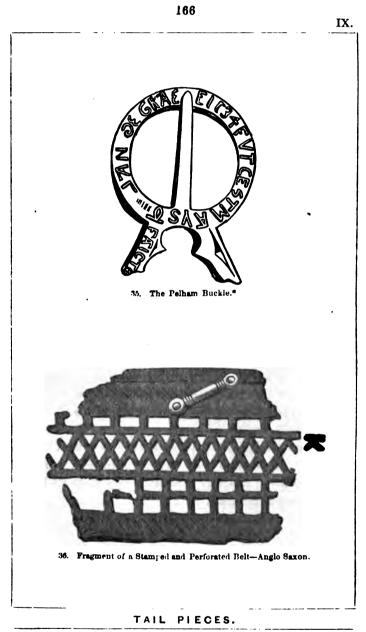
<sup>•</sup> The words in parentheses are English interlineations, above the corresponding words of the Latin text.

<sup>+</sup> John de Garlande, 13th century, in Mayer's Vocabularies, 123. 1 Ib. p. 194.

<sup>||</sup> Fleming's Dict., 1583.—Belte or Gyrdylle, Zona, Promptorium Parvulorum. § Cotgrave, 1611. ¶ Sherwood, 1650.

<sup>\*</sup> Bockle, boculle, bocul, bokyll, or bocle, Pluscula, Prompt. Parvul.

Conclusion .- It is interesting to observe the cycles within which fashion revolves ; re-producing old forms and habits, and securing for them, from the multitude, the attention which new ones usually command. There seems to be a practical limit to the inventive powers of those who originate new styles of dress and ornament ; for, while convenience is sometimes ignored, the eye not unfrequently requires to be trained in order to tolerate what is essentially ungraceful. This poverty of invention necessitates a recurrence to forms and circumstances when they have become quite obsolete. and in some degree it encourages the studies of the archæologist, by giving vitality to old customs, and according to them the sanctions of public taste. It would be easy to adduce numerous examples; but it may suffice to mention the reintroduction of hoops in the dresses of ladies, the design of which is to verify by contrast the false proverb,-that the smaller the waist the greater the heauty. Also, before the hemi-spherical brass nails have disappeared from the parlour chairs of our grandmothers, the square study of modern up**bolstery** have appeared by their side. It is not surprising, therefore, that even while we write the leather belt with studs should be seen upon ladies, and ornamental study on various parts of their dresses. The photographic albums in which these forms are commonly perpetuated, also exhibit in their style of binding a return to the customs of the past ; and show that the beauty of antiquity is admired, even when modern art has surpassed it in utility.



• One of the letters, it will be observed, is in a wrong direction.

# ON THE COLEOPTERA OF THE DISTRICT AROUND LIVERPOOL. PART II.

By C. S. Gregson, Pres. Northern Entom. Suc.

# (READ 2018 MARCH, 1862.)

Last year I gave the Historic Society a list of the Geodephage found in this district, and I now lay the list of the Hydrodephaga on the table, and hope it will be found as carefully worked up as the last list was. As accuracy is my only object, any one wishing to obtain a particular species has only to refer to the list in the Transactions of the S-ciety for the locality given to know exactly where I took the particular species he requires in the greatest abundance. The almost entire absence of fellow-labourers in the field of the Coleoptera is much to be deplored, but especially so in this much-neglected group. How yer, as the family is limited in Britain, I hope I have worked up the list so as to make it of service to those who come after me.

# ORDER COLEOPTERA.

## SECTION II.- HYDRODLPHAGA, MacLeary,

#### Dynsem i.,

### GENUS DYLYSCUS, Linn.

D. Marginalis, Linn.—This, the brights species in the family, is met with in most pits and pends around when using the dredging net, and may be attracted on moonlight nights by exposing an open vessel of water so that the moon can share upon it. The insect will be found in the water the next day. Summer.

### GENUS ACILIUS, Leach.

A. Sulcatus, Linn.- This species is in plenty in the flashes of water on Simonswood Moss. In July and August, when the Moss has become dry, they seem to congregate in the

### • Transactions, N.S. Vel, I. p. 33,

small wet places; they may be taken in the dredging net by dipping it well into the mud and spreading the contents on a dry place. These remarks apply to other dredged species.

#### GENUS COLYMBETES, Clairv.

- C. Fuscus, Linn.—Plentiful in the flashes of water in the Sandhills, at Wallasey, in April and May. Stand still at the water's edge, and in a few minutes they will be seen, as they rise from the mud.
- C. Pulverosus, Sturm.—In ditches and pits around Old Swan, Knotty Ash, &c. Spring and Summer.
- C. Bistriatus, Bergst.—Formerly common where Crown-street now is, and may still be found in the figure-of-eight pit, &c., in Parliament fields. June.
- C. Grapii, Gyll.—I have a single specimen taken by myself in Mosslake fields. This specimen is much smaller than specimens in my cabinet from the South of England.

#### GENUS ILYBIUS, Er.

- I. Ater, Deg.-Plentiful, especially in the pits around Aintree. Spring.
- I. Fenestratus, Fab.—Club Moor and Childwall. Spring.
- I. Augustior, Gyll.—Formerly plentiful in Mosslake fields. I have not searched for this species for some time.

#### GENUS AGABUS, Leach.

- **A.** Agilis, Fab.—Pits and ditches near Pigue lane, and Wavertree.
- **A.** Uliginosus, Pay.—Ditches in Edge lane, &c. April and May.
- A. Femoralis, Pay.-Parliament fields, pits and ditches.
- A. Maculatus, Linn.-Abounds in all stagnant pits, &c.
- A. Bipunctatus, Fab.—Sand hills, and freely at Childwall. Spring.
- A. Conspersus, Marsh.—Plentifully in most ponds and ditches.
- A. Guttatus, Pay.—I have only three specimens. They were taken from a fish pond near Hale Hall, in June.
- **A.** Bipustulatus, Linn.—May be met with at several widely separated localities; plentifully in the pits on the road side. near Walton station, on the Aintree road.

### GENUS NOTERUS, Cla.

N. Semipunctatus, Fab.—My specimens come from Sencombe Clough. They were taken by the late T. Townley, in 1841. Spring.

#### GENUS LACCOPHILUS, Leach.

L. Minutis, Linn.—Ditches at Seacombe and at Hale. June. L. Hyalinus, Deg.—At Bidston Marsh, and Bromborough, freely. Summer.

#### GENUS HYPHIDRUS, Ill.

**H.** Oratus, Lynn.—How often I hunted for this species I cannot tell, when, one day, I met with it in great plenty at Deysbrook, where the brook joins Lord Sefton's park. Since then I have seen it at Gill-moss, and at Rainford.

#### GENUS HYDROPORUS, Cla.

- **H.** Inequalis, Fab.—Clay pits, at Birkenhead. Spring. To work successfully for this genus (many of them frequenting dirty elay pits), it is best to disturb the water and wait quietly until the insects appear on the surface, when they are easily secured with a small hand net
- H. Decoratus, Gyll.—Patrick Wood—in a small stream which runs through it. April.
- H. Darisii, Curtis-Bidston Marsh freely. Spring.
- H. 12. Pustulatus, Fab. At Huyton, Knowsley and Bebington. Summer. Ditches.
- H. Septentrionalis, Gyll. Bromborough Pool, and ditches. Summer.
- H. Elegans, Ill.-With the above, but more abundant.
- H. R. Ricalis, Gyll.-Crosby Sand hills, freely, in Spring
- H. Dorsalis, Fab.-Bidston Marsh, and Frankby pits and ditches. Summer.
- H. Erythocephalus, Linn.-Freely, with the above.
- H. Opatrinus, Ger.—I have two specimens taken at Wallasey which I refer to this species.
- H. Planus, Fab.—Crosby Sand hills, in ditches and flashes of water. Spring.
- H. Palustris --- With Planus
- **H.** Assimilia, Fayk.—This species, first identified here by Dr. Schome, from specimens taken by the late Mr. Johnson and

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myself, in 1840, in Mosslake fields, has not been taken since this ground was built upon; it probably still exists in Parliament fields.

- H. Scalesianus, Steph.—In the ponds which empty themselves into the pool at Wallasey. Disturb the water, and then watch for them as they appear upon the surface.
- H. Lineatus, Oliv.-In the "Birket," near Upton road.
- H. Pictus, Fab.—Taken with Lineatus. I have several species in this genus not yet determined; but I prefer letting them stand over to placing them in this list incorrectly named.

# GENUS HALIPLUS.

- H. Rufcollis, De.-In the brook at Garston.
- H. Lineatocollis, Marsh.—In the mill dam at Garston, and at Crosby.

## GENUS PELOBIUS, Sch.

P. Hermanni, Fab.—Plentiful in some old ponds at Rufford.

# GYRINIDÆ.

# GENUS GYRINUS.

- G. Marinus, Gyll.—I have a good series, taken in Wallasey Pool before it was converted into docks.
- G. Natator, Fab.—On every water.
- G. Bicolor, Pay.—I have two specimens, one only of which is labelled; it was taken with Natator, between Bromborough and Raby.

# PROCEEDINGS.

# FOURTEENTH SESSION, 1861-62.

# ANNUAL GENERAL MEETING.

# Free Public Library, 1sth October, 1861.

# JOSEPH MAYER, F.S.A., &c., VICE-PRESIDENT, in the Chair

### The SECRETARY read the following

#### REPORT.

The events of the past Session enable the Council, in retiring, to congratulate the members on the future prospects as well as the actual position of the Society. The papers contributed, most of watch will shortly appear in the annual volume, were of equal interest with those of preceduing years; and the removal of the Society's place of meeting, through the liberality of the Town Council, to an apartment in the Free Public Library, will effect a reduction in the annual expenses of about twenty pounds.

Twolve volumes of Transactions having already been issued, the Council decided to begin a new scries with the volume now in the press, introducing such alterations with respect to type, Ac, as appeared dearable. It will therefore be published as the first of a new scries; there of the former being purchasable by members at reduced prices, which will be announced in the forthcoming volume.

As some diminution in the cost of producing the annual volumes may be expected in future, and the saving of rentecharge, already adverted to, may be regarded as permanent, the Council think this a farourable occasion on which to recommend the Society to alter Section V of the Laws, by omitting the words "who shall have an address "within the borough, or." and to alter Section VII, by omitting the words "one guines," and substituting the words " half acquires." The first alteration will have the effect of entiting all members, residing beyond seven miles from the Exchange, to be enrolled as non-resident, by the second, the entrance-fee will be reduced to one-half its present amount. The Council believe that the Society will sustain no loss by these changes.

The usual intercourse with kindred Societies has been maintained, and the collection in the library extended accordingly; but the Council

have to repeat the expression of regret, made by their precessors last year, at the decrease in the number of contributions to the museum. The library, at 57, Rauelagh Street, will be open every evening of meeting, from five till a quarter to seven, as heretofore.

The Excursion this year was made to Beeston Castle, Peckforton Castle and Bunbury Church; and a miscellaneous meeting was held in Mr. Mayer's Museum of Antiquities. A brief notice of both will be found in the appendix to the new volume.

Agreeably to the laws, the Council submit the names of seven gentlemen for election in place of those who retire from their respective offices.

It was moved by J. E. HODGKIN, Esq., seconded by E. F. EVANS, Esq., and resolved unanimously :---

That the Report now read be adopted, and printed and circulated with the Proceedings of the Society.

It was moved by THOS. REAT, Esq., seconded by DAVID BUXTON, F.R.S.L., and resolved unanimously :---

That the thanks of the Society be given to the Officers and and Sectional Members of the Council for their services during the past Session.

It was moved by P. R. McQUIE, Esq., seconded by A. CRAIG GIBSON, F.S.A., and resolved unanimously :--

That the thanks of the Society be given to Joseph Mayer, Esq., Vice-President, for the Illustrations for the annual volume presented by him; and for his reception of the members and their friends at his Museum of British and Foreign Antiquities on the 9th of May last.

It was moved by the CHAIRMAN, seconded by the Rev. A. HUME, D.C.L., Honorary Secretary, and resolved unanimously :---

That the thanks of this Society be given to the Town Council and their Library and Museum Committee, for their liberality and kindness in giving the Society a place of meeting in the Liverpool Free Public Library.

A ballot having been taken for the Officers and Sectional Members of Council, the result was announced from the chair. (See p. v.)

It was moved by P. R. McQuik, Esq., seconded by Thomas Sanson, F.B.S.E., and resolved unanimously :---

That, for the purpose of receiving the Treasurer's Statement of Account, postponed in consequence of the printing of the Annual Volume not being yet completed, this meeting do now adjourn to the 7th of November next, at Seven p.m.

At the adjourned Annual General Meeting held in the Free Public Library on the 7th November, 1861, the volume being still incomplete, a further adjournment took place to the 21st, when the following Statement of Accounts for the year ending 18th October, 1861, was submitted by the Treasurer.



It was moved by the Rev. A. HUME, D.C L., seconded by P. R. McQuiz, Esq., and resolved unanimously —

That the Treasurer's Statement of Accounts be passed and printed and circulated with the Proceedings of the Society.

### 7th November, 1861. ARCH.EOLOGICAL SECTION

# JOSEPH MAYER, F.S.A., V.P., in the Chair

The following donations were presented :-

#### From the Society.

Proceedings and Papers of the Kilkenny and South-East of Ireland Archaeological Society, N.S., vol. III, Nos. 31 to 33.

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From the Compiler.

- Family Reading: the New Testament Narrative harmonized and explained by the Bishops and Doctors of the Auglican Church.
- 2. Noctes Dominicæ; or Sunday Night Reading, made applicable to the proper Lessons for Sundays throughout the year; compiled from various Authors
  - By the Hon. Sir Edward Cust.

From the Chairman.

The Conquest of Britain by the Saxons.
 The Anglo-Saxon Sagas. By Daniel H. Haigh.

The following objects of interest were exhibited :--

- By Mr. McQuie.
  1. History of the Transactions in Scotland in 1715-16 and 1745-46. By George Charles, Stirling, 1817.
  2. An Account of the Seals of the Kings, Royal Boroughs and and Magnates of Scotland. By Thomas Astle, Esq., 1792.

- A work of John Buuyan, published from Bedford gaol.
   Reply to ditto, by Mr. Fowler.
   Moore's Antidote against Atheism, 1653.

- By Mr. Henderson.
  1. Life of Mary Stuart, folio, 1624.
  2. Characters of Theophrastus, translated into French. Amsterdam,
  - Characters of Theophrastis, transiet into French. Amsterdam, 1720. (David Hume's copy.)
     Sir Walter Raleigh's Cabinet Council, edited by John Milton, Esq., London, 1658.
     Fac-Simile of the first Scottish newspaper, *Mercurius Caledonius*,
  - January, 1661.

By the Rev. Dr. Hume. 1. Three New Zealand mats of elegant and elaborate workmanship. 2. Specimens of New Zealand flax, and a piece of rope made from it.

By Mr. Dawson.

A large portfolio, containing three hundred original sketches of old buildings in and about Liverpool, many of which have been pulled down.

The following Paper was read :---

CHIT-CHAT OF THE 'FORTY-FIVE, by Lieut.-General the Hon. Sir Edward Cust, D.C.L., &c., PRESIDENT.

#### 14th November, 1861. LITERARY SECTION.

WILLIAM BROWN, Esq., V.P., in the Chair.

The following donations were presented :---

From the Society.

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The Numismatic Chronicle, New Series, Nos. 2 and 3.



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From the Rev. Dr. Hume.

- Geremonies connected with the Opening of the Free Public Library and Museum, presented by William Brown, Esq., to the town of Liverpool.
- From the Author.
  - De la génération spontanée : avons nous en pere et mere ?
     Négre et Blanc : de qui sommes nous fils ? Par M. Boncher de Perthes.
- From M. de Perthes.

L'Abbevillois, French Newspaper, dated 10th September, 1861

The following objects of interest were exhibited :---

By Joseph Mayer, F.S.A

- A gold torque or collar recently found in a grave in Ireland. It is of the creatent form, an inch and three-quarters wide at the broadest part, gradually narrowing to the ends; it has an engraved border, and is of native metal, very thin, the weight being only about three ounces.
   The ends of the ends of
- 2. The origina. . Mary, Oxford. The original matrix of the common seal of the Church of Saint

- Mary, Oxford.
  3. One of the silver seals of the late Sick and Hurt Board.
  4. The original enrolment book of the Yeomanry Cavalry for the County of Lancaster in 1792.
  5. A MS, volume, containing many poems of the best of the Welsh Bards from the middle of the 15th century to the year 1672, when the collection was written. Many, if not all, of them are as yet inspired. inedited.
- By Mr. Holden.
  - A photo-zincograph copy of Domesday Book, so far as relates to the county of Cornwall.
- By Mr. Thomas Reay. Two pencil-sketches of Childwall Church, by a labouring man self-taught.

By Mr. William Blackmore.

- y ar. withan Blackmore.

   One of the medals presented by Garibaldi to his companions in the conquest of Sicily. On the obverse is an engle, holding in its claws a scroll, inseribed "S. P. Q. P.;" it bears the inseription, "Ai producui fn duce Garibaldi." On the reverse is a laurel wreath inclosing the sentence, "Il Municipo Palermitano riven. "Gartalefini," and surrounded by the names. "Marsala-"Cartalefini," Palermo.". " Catalafimi- Palermo.
- A photograph of Lely's portrait of Oliver Cromwell in the Pitti-palace at Florence.
- By A. Craig Gibson, F.S.A.
  1. The original diary of Colonel Henry Biadshaw, brother of the regicide Lord President.
  - 2. A True Copy of the Journal of the High Court of Justice for the Tryal of Charles 1, as it was read in the House of Commons, and attested under the hand of Pholps. Clerk to that Infamous Court. London, 16-4. 3. The Indictment, Arraignment, Tryal and Judgment at large
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of Twenty-nine Regicides, the Murtherers of His Most Sacred Majesty King Charles I. 4. The High Court of Justice; comprising memoirs of the principal persons who sat in judgment on King Charles the First and signed his death-warrant, together with those accessories excepted by Parliament in the Bill of Indemnity. Illustrated with their portraits, autographs and seals. Collected from authentic materials. By James Caulfield. London, 1820.

### The following Paper was read :-

ORIGINAL CORRESPONDENCE OF THE LORD PRESIDENT BRADSHAW; WITH OTHER DOCUMENTS ILLUSTRATING HIS PERSONAL HISTORY,\* By A. Craig Gibson, F.S.A.

### 21st November, 1861. SCIENTIFIC SECTION.

### THOMAS SANSOM, A.L.S., in the Chair.

The following donations were presented :----

From the Society. Proceedings of the Royal Society, Vol. XI, Nos. 44 to 46.

From the Society. Proceedings of the Royal Geographical Society, Vol. V, Nos. 1 to 4. From the Author.

A brief Dissertation on Hieroglyphical Letters. By Constantine Simonides, Ph.Dr.

From Mr. J. Eliot Hodgkin.

Fifty pen-and-ink Sketches, in exact Fac-Simile, by J. E. H., from a copy of Polydore Vergil's History of England in his possession.

- From Mr. H. W. Henderson.
  1. A Warrington play-bill.
  2. A Wigan Tradesman's Notice, dated 24th May, 1765.
  3. A Wigan Election Address, dated 4th May, 1753.
  4. A Sermon preached at St. Peter's, Liverpool, by the Rector, 27th Sept., 1790.

The following objects of interest were exhibited :-

By the Rev. Dr. Hume, 1. A complete set of plates illustrative of the Antiquities found near Great Mcols, in Cheshire, the objects in several being

2. A scientific toy, for producing white from the rapid rotation of the seven prismatic colours.

By John Newton, M.R.C.S.

An Essay upon the Supremacy and Infallibility pretended to by the Church of Rome; by Peter Whitfield. Liverpoole: printed by and for the Author, 1749.

\* Transactions, p. 41.

By Mr. Fabert. The Dial of Princes; compiled by the Rev. Father in God Don Antony of Guevara, Englished out of the French by T. North, 1508.

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The following Paper was read :--

ON BURNT-IN PHOTOGRAPHS, by J. A. Forrest, Est.

### 5th December, 1861. ARCH.EOLOGICAL SECTION.

### JOSEPH MAYOR, F.S.A., V.P., in the Chair.

The following gentlemen were duly elected ordinary members of the Society :-

- 1. William Jackson, Bedford road, Rock berry,
- John Kendal, Fishergate, Preston.
   Joseph Read, 17, <sup>1</sup> pper Huskisson street
   Nicholas Waterhouse, Rake Jane.

The following donations were presented -

From the Society.

Bulletin de la Societe Arche d'ogique de l'Otleanal». Not es

From the Society of Antiquaries of Newcastle spon-Tyne.

Archa ologia "Eliana, Part 18.

From the Editor

The Archaeological Mine, Part 43, ohted by A.J. Duakin

From the Alter Lerd Lordest cough-

An illustrated descriptive Catalog cost the collection of Antique Silver Plate formed by Miest 4 follows as a rough - By F.W. Fairheat, F.S.A.

From the Editor.

Fac-smales of certain portions of the Groupel of Saint Mattlew, and of the Epistles of Saints dam s and duck, Act. By C. Simonides, Ph Dr

From Mr. H. W. Harrison

- From Mr. H. W. Harrison
  1) A continuate dated 11th April 1727, and segned by lester Combine and Bryan Blund h, during each the Propertor the horsespheric Process of the number of the conditional control of the function of the spectrum of the function o

"Majestie King George Intitled an Act for granting an Aid to "his Majestie by laying a Tax upon Papists and for making such "other persons as upon due sumons shall refuse or neglect to "take y" oaths therein menconed to contribute towards y" said "Tax for reimbursing to y" Publick part of y" great Expences "occasioned by the late Conspiracies And for discharging y" "Estates of Papists from y" two-third parts of y" rents and proffitts "thereof for one year and all arrears of y" same And from such "forfeitures as are therein more particularly described."

The following objects of interest were exhibited :-

By Mr. McQuie.

An Essay on the Ancient and Modern Use of Armouries, with Illustrations. By Alexander Nisbet, gent. Edinburgh, 1718. By the Rev. Dr. Hume.

A great number of Coats of Arms, in illustration of his Paper.

### The following Paper was read :-

ON THE HERALDRY OF LANCASHIRE AND CHESHIRE, by the Rev. A. Hume, D.O.L., Honorary Secretary.

### 12th December, 1861. LITERARY SECTION.

WILLIAM BROWN, Esq., V.P., in the Chair.

The following donations were presented :---

From the Society. Transactions of the Royal Society of Literature, Second Series, Vol. VII, Part 1.

From the Smithsonian Institution.

Second Report of a Geological Reconnaissance of the Middle and Southern Counties of Arkansas, made during the years 1859 and 1860. By Robert Dale Owen.

From the Author.

Collectanea Antiqua, Vol. V, Part 4. By Charles Roach Smith.

The following objects of interest were exhibited :----

By the Rev. Dr. Hume. 1. Model of a Fiji Temple. 2. Various Celts and other objects in stone.

By Mr. Mott.

A collection of MSS., Prints &c., relating to the poet Cowper, including a number of his autograph letters, the earliest dated 30th January, 1767.

By Mr. Thomas Reay.

MS. copy of the English Primer, or First English Prayer Book.

- By Mr. F. J. Jeffery.
  I. The new French silver five frame-piece, with the head of the Emperor Napoleon 111 laureated, in commemoration of his victories in Italy.
  - 2 The Gothic crown piece of Queen Victoria, struck in 1847, but subsequently, except a small number, returned to the Mint and melted down, their size, rather beyond that of the ordinary crown-piece, being considered objectionable.

### By Mr. Buxton.

The case of James Mitchell, being the first account of a blind deaf mute ever published. By Dugald Stewart. Edinburgh, 1812.

The following Paper was read -

ON A RIGENT CASE IN (H) COURT OF PRODUCE - by David Burton, F.R.S.L., Honorary Librarian.

### 19th December, 1861. SCIENTIFIC SECTION.

JOSLOW MANYE, F.S.A., V.P., in the Chair,

the following donations were presented

From the Society

Memours of the Royal Astronomical Society, V.I.XXIX, Session 1859-001

From the Society of Anti-primes of Picarly Explication du Zolhaque de Darder 0, des Pyrenities et de la Genese, Pardastin Roday

I rom the Society

Annual Report for 1800.61 of the Loods 1 berary and the brophs of Society

From the Society, Report of the Proceedings of the Godozied and Polytochine Society of the West Riding of Yorkshire, 1800

From the Association.

Transactions, we dot the Liverp of Charlist New Latent Session 180061.

A discussion on a point of order having our quid the Meeting beyond the usual hour for the reading of Papers, the Partier business very point point to a subsequent Meeting.

### and January, 1862. ARCH FOLOGICAL SPCTION

### WILLIAM BLOWS, FS p. V.P., in the Chair

Mr James Milligan, jun., Longview, near Huyton, was didy (leated an ordinary member of the Society ----**.** . ..

• Fransactorial p. 11\*

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The following Donations were presented :---

From the Society. Journal of the Royal Asiatic Society, Vol. XVIII, Part 2, and Vol. XIX, parts 1 and 2.

From the Society. Proceedings of the Liverpool Philomathic Society, 1860-61.

From the Manchester Corporation. Ninth Annual Report to the Council of the City of Manchester on the working of the Public Free Libraries. October, 1861.

From the Protestant Alliance. The Speech of William Bovill, Esq., Q.C., M.P., in the action of Turnbull v. Bird.

The following objects of interest were exhibited :----

By Mr. A Shute. A black-letter Bible, dated 1630, with a curious genealogical table of Scripture Characters.

By Mr. Fabert.

A large stone bomb-shell, found in the old fortress called Bassein, about thirty miles north of Bombay. The fortress appears to have been built by the Portuguese.

By the Rev. G. B. Mellor.

An extensive collection of Brass-rubbings from monuments in various parts of England.

### The following Paper was read :--

"ON THE RELIGION AND CHIVALEY OF ENGLAND FROM THE "THIRTEENTH TO THE SEVENTEENTH CENTURY," by the Rev. George B. Mellor.

### 9th January, 1862. LITERARY SECTION.

The Rev. THOMAS MOORE, M.A., in the Chair.

Richard Assheton Cross, Esq., M.P., was duly elected an ordinary member of the Society.

### The following donations were presented :---

From the Smithsonian Institution.

Smithsonian Report, 1859.

From the Society. Journal of the Statistical Society, Vol. XXIV, Parts 2 to 4.

- From C. Roach Smith, F.S.A.
  1. Denier de Charles le chauve, frappé à Famars.
  2. Médaille Hispano-Mexicaine de Ferdinand VII.
  3. Curiosités Numismatiques; Monnaies et Jetons rares ou inédits
  - (3. Article).

The following objects of interest were exhibited .-

By Mr. J. R. Hughes

- A.M.S. volume, showing the disbursements made on account of the poor rates of Toxteth Park about fifty years ago, amounting to about 250 a month; they are at present nearly 25,000.
   The original list of persons assessed in Toxteth Park for the
- land-tax in 1797.

By Mr. Nicholas Waterhouse.

A bronze figure of a cat, which had once contained the mummy of a kitten, and bears on its head the sacred scarabous, or mysterious earth-creating beetle. This object is from the great necropolis of Noph

The following Paper was read ---

ON THE MIGRATION OF POPULATION ON GLEAF BRITAIN, by Nicholas Waterhouse, Esq.

### 16th January, 1862. SCIENTIFIC SECTION.

Wit, Brinke, Esq., Treasurer, in the Chair.

The following donations were presented .=-

From the Society

Quarterly Journ d of the Geological Society, Vol. XVII, Parts 2 to 4 From the Society.

Journal of the Society of Arts, Nos. 441 to 470.

From Mr. R. Metfull, St. Helen's Section of the St. Helen's coal field, drawn to a scale and coloured

The following of port of interact was exhibited -

By the Rev. Dr. Home

A here to y for frame A hereitful yill min ated work, designed and is not by Mr (othert d French, FSA, of Bolton, containing transitions spectra is of descriptive devices armoral hearings, motions alphabets A is for Sunday School descriptions.

The following Papers were read-

I ON THE PLACE WAS A WORK AND INCOMENDATION STRUCTURE AND PLACE FOR STRUCTURE STRUCTURE AND PLACE AND PLA

# 69. Televery, 1862 ARCH FOLOGICAL SECTION Rev. J. S. Howses, D.D. in the Cher

Mr. Edward Edwards, Inchrone, West Derby was duly elected at ordinary member of the Secrety

• Frankactions, p. 81. . . Frankaction op 28 • Transa (Isus, page 1.

The following donations were presented :---

From the Kent Archæological Society. Archæologia Cantiana. Vols. II and III.

From the Society. Transactions of the Ossianic Society, Vol. VI.

From the Society. Proceedings of the Society of Antiquaries of Scotland, Vol. III, Part 2.

From the Author.

Notes on the Origin and History of the Bayonet. Communicated to the Society of Antiquaries, by John Yonge Akerman, Esq., F.S.A., Secretary.

From the Author.

On Anglo-Saxon remains discovered recently in various places in Kent, by C. Roach Smith, H.M.R.S.L.

From Joseph Mayer, F.S.A., V.P.

Photograph of a monument found at Uriconium, on the site of the cemetery.

The following objects of interest were exhibited :----

By the Chairman.

- A copy of the earliest English translation of Camden's Britannia, by Philemon Holland, dated 1610.
   Vetera Romanorum Itineraria, by Wesseling, printed at Am-
- sterdam in 1785.

By the Rev. Dr. Hume.

A panel in white marble, containing the effigies of Saint Peter and Saint Paul, apparently of the eleventh century. It is said to have belonged to the collection of the late Earl of Shrewsbury.

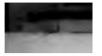
By Mr. H. Ecroyd Smith.

y Mr. H. Ecroyd Smith. A number of the antiquarian products of last year's excavations by the advancing tides in the sea-beach of Cheshire; comprising several novel types of brooches, hasps and buckles in brass, with Norman goad-spur and arrow-head in iron, &c.; some coins, including a sestertius of the Emperor Antoninus Pius (A.D. 138—161), and the clipped half of a silver penny of Henry II.

The following Paper was read :----

NOTES SUGGESTED BY A VISIT TO UBICONIUM, by the Rev. J. S. Houson, D.D.

DR. Howson justified his bringing forward these slight notes so soon after Mr. Wright's communication on Uriconium, by the growing interest of the subject and by reference to recent excavations. He said he had only to offer literally some "notes suggested by a recent visit" to the place; and (1) he noticed how pleasant and how casy the excursion is from Liverpool, alluding generally to the historical associations of Shrewsbury and the aspect of the country towards Wroxeter. (2) He called attention to the geographical position of the place, not merely in regard to physical features, especially the Wrekin, the Severn and the



hills of the Welsh frontier, but rather in connection with military relations, noticing especially the river in front, and the space intervening between it and the hills, and the Roman roads running northwards to Chester (*Deca*) and southwards to Careleon (*Leo*), which were great military stations, besides the Walling Street running S.F. to London and the Kentish coast. In connection with this last point he mentioned the great heaps of oyster shells at Uriconium, which had doubless come from Richborough (*Ratupice*), the oyster-beds of which are celebrated by the Roman satirist. (3) Next he turned to the name, which is unquestionably the Latinized form of "Wrekin," the word so familiar to every Shropshire man — "Wroxeter," having the same root disguised in a modern form, as is evident from the combination "Wrekin-thester" in the earliest English translation of Canden (4). The sources of identification were next touched on, and it was remarked that *Uriconium* is not mentioned by any Historian, but merely by Geographical autherities, viz. Ptolemy, Antonine, in his Tunerary, and the anonymous geographer of Ravenna - the mention, however, being of such a kind as beyes no doubt of its identify with the buried city near Worcester (4) vis to its history, it was shewn that the coins discovered there connected it with the period between Domitian and Valerian, many of them being those of Constantine and the usurper Caracus, and that all the appearances led to the conclusion that it was distroyed by violence just before the Saxons were settled in this country, a period when great distantion took place of ettics hear the Welsh frontier (6). Such as the state were addineed – proofs of the use of inner at (6) when distant in the Roman period, with illustrations of the size of the distant in the Roman period, with illustrations of the size of the distant in the Roman period, with illustrations of the size of the distant in the Roman period, with illustrations of the size of the distant in the Roman period, with illust

### 13th February, 1862. LITERARY SECTION

A. CRAIG GIBSON, F.S.A., Hon Curator in the Chair

Mr. Charles Holt, Bolton, was duly elected an ordinary member of the Society.

The following donations were presented :---

From the Liverpool Watch Committee. Report on the Police Establishment and the State of Crime, with Tabular Returns, for the year ending 29th September, 1861.

From the Architectural and Archæological Society of the County of Buckingham.

Records of Buckinghamshire, or Papers and Notes on the History, Antiquities and Architecture of the County, part of vol. I, viz., Nos. 1 and 2 to 8, and Index, &c.; vol. II, Nos. 1 to 6.

From the Numismatic Society. The Numismatic Chronicle, N. S., No. IV.

From the Publisher.

Poor Rabbin's Ollminick for the Town o' Bilfawst, for 1862 ; being an illustration of the local dialect.

The following objects of interest were exhibited :--

By Mr. Fabert.

A head-dress from Nova Zembla, of fur, ornamented with stripes of coloured woollen cloth.

- By Mr. H. A. Bright.
  1. A Copy of the very rare "One hundred and Ten Considerations "of John Valdes," translated by Nicholas Farrar, of Little Gidding, in 1638.
  - A Copy of the "Alfabete Christiano," by Valdes, translated from the Italian by Benjamin B. Wiffen, and of which 100 copies only have just been printed. 2.

By Mr. Jacob.

A brass tobacco-box, ornamented with portraits of Frederick the Great, of Prussia, and Ferdinand, Duke of Brunswick-Lunenburg, and bearing an inscription referring to the Battle of Minden.

By Mr. Bloxam.

Two objects in Silver, with silver-gilt raised work, believed to be a pair of Anklets.

The following paper was read :---

ON THE ROMAN FORTS BETWEEN BURNLEY AND COLNE, by Mr. James Stonehouse.

20th February, 1862. SCIENTIFIC SECTION.

WILLIAM BURKE, Esq., TREASURER, in the Chair.

The following donations were presented :---

From the British Government, through Mr. Hartnup, V.P. Observations made at the Magnetical and Meteorological Obser-vatory, at St. Helena, vol. II, 1844-49.

From the Society.

Quarterly Journal of the Geological Society, vol. XVIII, part I.

From the Royal Irish Academy. Proceedings, vol. VI ; and Nos. 1 to 13 of vol VII.

From the Royal Society of Edinburgh. 1. Proceedings, 1560-61.

2. Transactions, vol. XXI., part 3.

The following objects of interest were exhibited :--

By the Rev. Dr. Hume.

y the Rev. Dr. Hume. A new and elegant Map of Australia, published at Sydney, shewing the routes of the various explorers over that vast continent. Dr. Hume shewed the course of Burke, Wills and King, and exhibited Colonial lithographed portraits of the first and second. A small volume was also haid upon the table, compiled from the diarie-and the narrative of the survivor, printed at the office of the Millerer Marked. Melbourne Herald.

By Mr. Towson. Numerous specimens of Metallic Ores, in illustration of his paper

The following paper was read :-

ON THE PRIMARY AND SECONDARY FORMATIONS OF METALLIC ORES, **by J. T. Towson**, F.R.G.S.

### 6th March, 1862. ARCH. EOLOGICAL SECTION

### JOSEPH MAYER, F.S.A., V.P., in the Chair.

The following noblemen and gentlemen were duly elected ordinary members of the Society --

Right Hon, the Lord Egerton of Tatton, Tatton park, Knutsford Right Hon William Ewart Gladstone, M.P. 11, Carlton terrace

Right Hon, William Ewart Gladstone, M.F. 11, Carnon servace London, S.W.
Thomas Bazley, Esq., M.P., Hayesleigh, Manchester.
John Laird, Esq., M.P., Handton square, Birkenhead
Lieut. Col. M'Corquedale, Newton-lewillows.
Hon, Algernon, Egerton, M.P., Worsley Old hall, Manchester
Richard Norbury, Esq. 3, Myrtle street
Richard Fort, Esq., Woelley hall, Maidenhead, and Read hall, Clitheres. Clitheree. Right Hon-the Lord Wensleydale, Ampthull park, Ampthull

The following donations were presented :---

From the Society.

Proceedings and Papers of the Kilkenny and South East of Ivland Archasological Society, N.S., vol. IV, No. 34.

From the Suffolk Institute of Archaeology, Statistics and Natural History. Proceedings, vol. II, Nos. 1 to 7., and vol. III, No. 1

From the Publisher.

Health a Family Medical Journal, No. 3

The following objects of interest were exhibited :----

By Mr. F. J. Jeffery. Fac-similes of the various signatures of Napoleon Bonaparte.

By Mr. Newton.

A rare book, containing the code of the Inquisition, at the time when Galileo was its prisoner.

By Mr. H. Duckworth, F.G.S.

- y Mr. H. Duckworth, F.G.S.
  1. Some large flints, obtained by himself at the cuttings in the drift in the North of France, including the *langue\_de-chat*, pike-head, cutting-tool &c.
  2. Photographic view of the cutting, shewing one of the flint implements in situ.

By Mr. H. Ecroyd Smith. Various specimens of objects in flints, evidently used by a very primitive people.

By the Rev. George B. Mellor, Warrington. Three stone axes found in the North of Ireland.

By Rev. Dr. Hume.

Eight objects in stone, consisting of axes and war-clubs; one of the latter being of greenstone, beautifully wrought, and almost as delicate in construction as if made of bronze.

By the Chairman.

- Flint implements, principally from the neighbourhood of Bridlington, consisting of arrow-heads, saws, a fish-hook &c.
   Three objects in stone, viz. :-- a chisel, several inches in length, from Warwickshire; a hammer, with hole for handle; and another found in Tranmere Pool, with part of the wooden handle which had belowed to it.
- which had belonged to it. 3. A large cup, probably formerly used as a drinking vessel. It is formed of staves of wood, the outside being covered with a sheet of bronze, overlapping the rim nearly an inch and a half within : the handle is of bronze, of the spiral form called the trumpet shape, peculiar to the Ancient Britons. It was found near the old encampment called Ternen-y-Múr, in Merionethshire.
- The Chairman referred to the recent decease of the Rev. Dr. Thom, and paid a tribute to his excellence and usefulness, and his long connexion with the Society.

The following Paper was read :

THE HUMAN RACE: ITS ORIGIN, HISTORY AND EARLIEST FORMS OF CIVILISATION,\* by John Newton, M.R.C.S.

13th March, 1862. LITERARY SECTION.

LIEUT.-GENERAL THE HON. SIR EDWARD CUST, PRESIDENT, in the Chair.

The Right Hon. the Earl Grosvenor, M.P., Calveley, Tarporley, was duly elected an ordinary member of the Society.

\* Transactions, p. 95.

### The following donations were presented :--

From the Society. Journal of the Royal Dublin Society, Nos. 20 to 23.

From the Society. Journal of the Geological Society of Dublin, vol. IX, part 1.

From Mr. Thomas Gleave, Flint.

An Impartial Collection of the Addresses, Songs, Squibs &c., that were published at Liverpool during the election of Members of Parliament in November, 1806. Dublin.

The following object of interest was exhibited -

.

By Mr. E. F. Evans. Fragment of a large bowl of Samian ware, ornamented with the usual wave lines, with hares and leaves alternately, found near Flint in 1861.

### The following Paper was read :---

ON THE DEATH OF CHARLES THE SECOND, by Lieut.-General Sir Educard Cust, D.C.L., President.

### 20th March, 1862 SCIENTIFIC SECTION.

PETER R. McQUIL, Esq., in the Chair.

### The following donations were presented -

From the Society. Journal of the Statistical Society, vol. XXV , part 1

From the Society.

Proceedings of the Royal Society vol. XI, No. 17

From the Society. Proceedings of the Royal Geographical Society, vol. V. No. 5, and vol. VI, No. 1.

From Mr. C. S. Gregson. Proceedings of the Northern Entomological Society, for the 25th September and 21st December, 1861, respectively.

The following objects of interest were exhibited --

By Mr. Mercer.

A specimen of Daft's patent copper sheathing for iron slops
 A short length of the original Atlantic Tolograph Cable, shewing

that the gutta percha covering had become contracted.

By Mr. C. S. Gregson.

Specimen of Nycia Zonaria, alive
 Photographs of Abraxes Grossularia
 Various entomological specimens.

By Mr. G. M. Browne.

Photographs, from under the microscope, of some remarkable forms of the Polycystins and allied genera of the Barbadoes chalk deposit.

By Mr. F. J. Jeffery. Photographs of the respective handbills of the York stage-coach for 1706, when the journey to London occupied four days, and of the Great Northern Railway for 1861, when the same journey and back, with two hours for business or pleasure, may be performed in the same day. in the same day.

The following Papers were read :--

1. ABSTRACT OF THE PRINCIPAL MINES OF THE BURNLEY COAL-FIELD,\* by J. Whitaker, F.G.S., and T. T. Wilkinson, F.R.A.S. &c. 2. ON THE COLEOPTERA OF THE LIVERPOOL DISTRICT, PART II; HYDRODEPHAGA, † by C. S. Gregson, President of the Northern Entomological Society.

### 10th April, 1862. LITERARY SECTION.

### PETER R. MCQUIE, Esq., in the Chair.

The following were duly elected ordinary members of the Society.

Right Hon. the Lord Stanley, M.P., Knowsley, and 23, St. James's

square, London. William Mathison, Liverpool and London chambers. James Stonehouse, 25, Phythian street.

The following donations were presented :---

From the Society. The Numismatic Chronicle, N.S., No. IV.

From the Society. Proceedings of the Literary and Philosophical Society of Liverpool,

From the Authoress.

- rom the Authoress.
  1. Brief Comments on the Revised Speech of the Right Hon. Robert Lowe, M.P., on the Revised Code of the Regulations of the Committee of Privy Council on Education, in the House of Commons, February 13, 1862.
  2. National Elementary Education and the New Code. By a School Manager.

The following objects of interest were exhibited :----

By the Rev. Dr. Hume.

A curious product of civilization-a watchguard, manufactured by a Maöri woman from her own hair.

> \* Transactions, p. 113. + Transactions, p. 167.

By Mr. J. H. Gibson. Several articles found at Wroxeter, consisting of bone styli, bone

hairpins, an iron skewer or hairpin, and several cons. By Mr. H. A. Bright The autograph of Nostradamus in a copy of *Silius Itolicus*.

By Mr. Brakell

A volume of historical and literary curiosities, containing fac similes of letters, &c , and profusely illustrated

### The following Paper was read

A HISTORICAL SKETCH OF THE LAVERGOOF BLUE COAT HOSPITAL--CONCLEMENT NOTICE, by Mr. J. R. Hughes. ----

### 1st Mag. 1862. ARCH.EOLOGICAL SECTION

# JOSLEN MAYER, I.S.A., V.P., in the Chair,

The following gentlemen were duly elected or hnary members of the Society ..

F. H. Birkenheid, U.G.S., Searisbrick street, Wagan

J. H. Gibson, Apsley value, he broad read T. J. Hall, 28, Lond n road

Parfollowing donations were prosented

From the Society Proceedings of the Royal Society, V 1 XI, No. 1

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From the Society.

Bulletin de la Société Archéologique de l'Orléanais, No. 39.

From C. Roach Smith, F.S.A. Note sur les ouvrages offerts à la Société d'Emulation, par M. Roach Smith, membre correspondant.

From the Society. Journal of the Society of Arts, Nos. 471 to 492.

The following objects of interest were exhibited :-

By Mr. Craig Gibson, (by permission of Miss Jones of Bebington.) A curious earthen drinking vessel, called a costril. It is in the form of a barrel, with two handles on the top, between which is the neck; through this the vessel was filled. At one side is a mouth-piece for drinking through, underneath which is a circular medallion, bearing, in *relievo*, a well designed lion courant. On one of the ends is a female face in *mezzo-relievo* in a moulded border; above is a *fleur-de-lis*, the whole enclosed in two palm branches. The remaining correspondence in the top that found branches. The remaining ornamentation is similar to that found on the rude pottery of the 16th and 17th centuries.

bit the full pottery of the four and 17th centuries.
By Mr. H. Ecroyd Smith.
Various articles recently discovered on the Cheshire sea-coast, viz.:

The sole and part of the welting of a shoe or boot of the 12th—14th century. This specimen was found near the ruins of probably the last house of the ancient village of Meols.
The root of an antler of *Oervus Hibernicus*, perforated, and apparently having been used as a hammer-head.
An iron Norman *pheon* and lance-head, in excellent preservation

vation.

The following Papers were read :---

I. FURTHER REMARKS ON METALLIC ORNAMENTS, AND ATTACHMENTS TO LEATHER,\* by the Rev. A. Hume D.C.L., Hon. Sec.

II. ON THE FLORA OF PRESTON AND THE NEIGHBOURHOOD, + by Mr. Charles Joseph Ashfield.

### 8th May, 1862. MISCELLANEOUS MEETING.

### WILLIAM BROWN, Esq., V.P., in the Chair.

The Library and Museum Committee of the Town Council having given permission to the members to attend on this evening with their friends, including ladies, at the Derby Museum, which was lighted up on the occasion for the first time, a large party assembled, and, after partaking of refreshments in the Society's ordinary meeting-room, the remainder of the evening was spent in the following manuer :--

In the lecture-room, Mr. G. H. Morton, F.G.S., delivered an account of the Geology of Liverpool and the Neighbourhood, illustrated by diagrams.

• Transactions, p. 199.

+ Transactions, p. 75.

At the close of Mr. Morton's discourse, Messrs. Hardman, Baker, Abraham, J. Henderson, jun., and Sansom exhibited, in the meeting-room, numerous objects of scientific and general interest, under their microscopes.

Mr. T. J. Moore, the Curator, conducted the portion of the company not engaged at the microscopes through the Derby Free Museum, explaining its plan and directing attention to some of the most interest-ing objects in the collection.

The following objects of interest were exhibited :-

- By Mr. Bailey. A sample of the Nardoo seed, which has recently acquired a painful celebrity as the wild food which afforded the last insufficient sustenance to Burke and Wills and their follower King, during the latter part of their wanderings in central Australia.

By Graham H. Hills, R.N., of the Liverpool Marine Surveyors' Department, through Dr. Hume. A series of sketches of the Round Towers of Ireland, executed by the brother of Mr. Hills, and intended for publication.

By the Rev. Dr. Hume.

- 1. Specimens of stone hatchets, axe-heads &c., from Ireland and New Zealand.
- 2. Similar objects from Denmark, sent by Mrs. Whitehead.

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## APPENDIX A. [Note \* p. 40.]

[The following notice also appeared in one of the local journals shortly after Mr. Campbell's death.]

### THE LATE COLIN CAMPBELL, ESQ.

Amongst those who are every day removed from us by death, there are few whose loss will be more regretted than the subject of these remarks—the late Colin Campbell, Esq., one of the magistrates for the county, who died at his house, Dingle-mount, Toxteth-park, on Wednesday last.

He was known by those who associated with him in business as one remarkable for his quiet, unobtrusive demeanour, his urbanity, his correctess, his undeviating integrity, and, in short, for all those qualities which place a man high in public confidence, and which most deservedly rewarded him with an ample fortune, with which he retired a few years ago into private life.

His attainments, especially in the higher departments of mathematics, were extensive, and no one was better read in the current literature of the day, or took more delight in discussions upon our elder writers of History and the Belles Lettres.

When a resident in Kendal, he was the chosen friend of the celebrated mathematician Gough, and the intimate of the still more celebrated Dalton, afterwards of Manchester. He has left little of a literary kind behind him, except a choice collection of problems and their solutions, of which he printed a few copies for presents.

Singularly modest and unostentatious, he shrank instinctively from public gaze, and placed his happiness in the performance of domestic duties, and in the society of a few friends who admired and loved him, and in whose hearts his memory will long be enshrined.

22nd October, 1851.

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